WKE

FEB 2014

PROJECT ID: 1033-02-72

WITH:

COUNTY: RACINE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 770

07

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

N-S FREEWAY, STH 20 INTERCHANGE

MAINLINE & RAMPS

IH 94

RACINE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1033-02-72	WISC 2014041	1

STATE PROJECT NUMBER
1033-02-72





DESIGN DESIGNATION

	IH 94	STH 20	CTH C
A.A.D.T. 2010 =	92,320	2010 = 32,620	2010 = 7,130
A.A.D.T. 2035 =	114,600	2030 = 40,050	2030 = 9,300
D.H.V. =	9,740	= 3,710	= 410
D.D. =	55/45	= 57/43	= 58/42
T. =	14%	= 15%	= 2%
DESIGN SPEED =	70 MPH	= 50 MPH	= 55 MPH
ESALS =	36,383,200	= 20,629,800	= 817,600

CONVENTIONAL SYMBOLS

PLAN

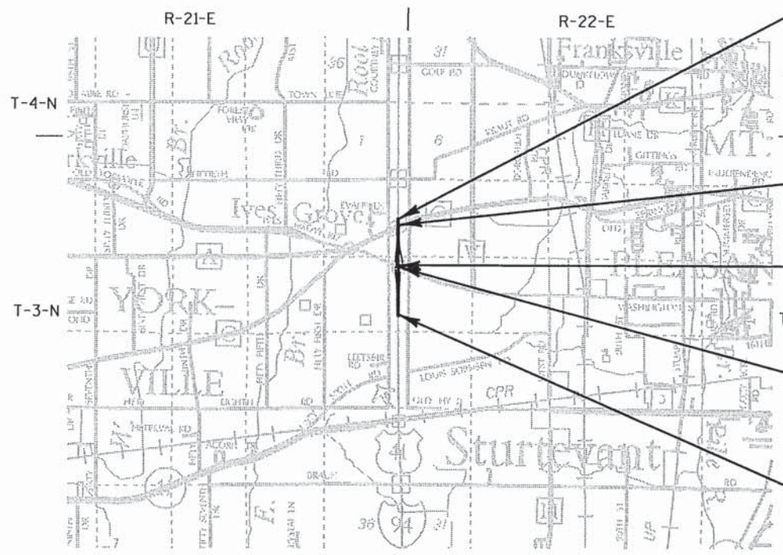
- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE



LAYOUT
SCALE 0 1.0 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.250 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), RACINE COUNTY, NAD 1983(97)

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988(91) (NAVD 88(91)).

RETAINING WALLS

R-51-42
R-51-43
R-51-44
R-51-45

SIGN STRUCTURES

S-51-27
S-51-28

Milwaukee Transportation Partners LLC

ORIGINAL PLANS PREPARED BY
MILWAUKEE, WISCONSIN

WISCONSIN
ANDREA M. MASTERS
38385
RACINE, WI
PROFESSIONAL ENGINEER

7/31/13 (Date)

(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	MTP
Project Manager	JOSHUA LEVEQUE
District Examiner	
District Supervisor	WAFA ELOAO
C.O. Examiner	

APPROVED FOR DISTRICT OFFICE

DATE: 7-31-13 (Signature)

E

UTILITY CONTACTS

AT&T LONG DISTANCE
MR. KEN NINE
JMC ENGINEERS & ASSOCIATES INC.
4900 SPRING STREET, SUITE 203
RACINE, WI 53406
PHONE: (574) 904-6336
kennethnine@att.net

AT&T WISCONSIN
MIKE TOYEK
AT&T WISCONSIN
411 7TH STREET
RACINE, WI 53403
PHONE: (262) 636-0549
mt1734@att.com

LEVEL 3 COMMUNICATIONS, LLC
MR. MARK DECHANT
LEVEL 3 COMMUNICATIONS, LLC
1025 ELDORADO BOULEVARD – 33A526
BROOMFIELD, CO 80021
PHONE: (414) 271-1128
CELL: (414) 426-1875
mark.dechant@level3.com

MOUNT PLEASANT, VILLAGE OF
MR. ROBERT PUCELY
SEWER UTILITY
6126 DURAND AVE
RACINE, WI 53406
PHONE: (262) 554-8750
FAX: (262) 554-6785
rpucely@mtpleasantwi.gov

WE ENERGIES (ELECTRIC)
SEND ALL CORRESPONDENCE TO:
MR. DAN SANDE
333 W. EVERETT STREET - A299
MILWAUKEE, WI 53203
PHONE: (414) 221-4578
FAX: (414) 221-2336
dan.sande@we-energies.com

CONSTRUCTION FIELD CONTACT:
MR. ERICH WUESTENHAGEN
500 S. 116TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 651-3948
erich.wuestunhagen@we-energies.com

WE ENERGIES (GAS)
SEND ALL CORRESPONDENCE TO:
MR. DAN SANDE
333 W. EVERETT STREET - A299
MILWAUKEE, WI 53203
PHONE: (414) 221-4578
FAX: (414) 221-2336
dan.sande@we-energies.com

CONSTRUCTION FIELD CONTACT:
MR. ERICH WUESTENHAGEN
500 S. 116TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 651-3948
erich.wuestunhagen@we-energies.com

WISDOT STOC
MR. JEFFREY MADSON
WISDOT STOC
433 W. ST. PAUL AVE. SUITE 300
MILWAUKEE, WI 53203
PHONE: (414) 225-3723
jeffrey.madson@dot.wi.gov

YORKVILLE, TOWN OF
MS. JUDY AIMONE, CLERK/TREASURER
720 MAIN STREET
PO BOX 15
UNION GROVE, WI 53182
PHONE: (262) 878-2123
FAX: (262) 878-1680

OTHER AGENCIES

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
KRISTINA BETZOLD
DNR SE REGION HEADQUARTERS
2300 N. DR. MARTIN LUTHER KING JR DRIVE
MILWAUKEE, WI 53212
PHONE: (414) 263-8517

WisDOT UTILITY COORDINATOR
RABI BISTA
WisDOT SE FREEWAYS UTILITY COORDINATOR
141 NW BARSTOW ST.
WAUKESHA, WI 53187-0798
PHONE: (414) 750-7224
Rabi.bista@dot.wi.gov

RACINE COUNTY DPW
MR. JEFFREY KATZ, COUNTY ENGINEER
RACINE COUNTY DPW
14200 WASHINGTON AVENUE
STURTEVANT, WI 53177
PHONE: (262) 886-8440
FAX: (262) 886-8480
jeff.katz@goracine.org

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
FTMS
EROSION CONTROL
STORM SEWER
EXISTING SIGNING
PERMANENT SIGNING
LIGHTING PLANS
PAVEMENT MARKING
TRAFFIC CONTROL
STAGE CONSTRUCTION
ALIGNMENT LAYOUT

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE.

DIGGERS HOTLINE

Call 811 3 Work Days Before You Dig
Or Toll Free (800) 242-8511
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

2

GENERAL NOTES

NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATION AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES SHALL BE FILLED WITH GRANULAR BACKFILL AND PAID FOR AS INCIDENTAL TO THE ABANDON OR REMOVAL ITEM.

WHEN THE QUANTITY OF HMA PAVEMENT OR BASE AGGREGATE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

THE QUANTITY OF TOPSOIL SPECIAL IS COMPUTED FROM MEASUREMENTS BETWEEN THE SUBGRADE SHOULDER POINTS AND THE SLOPE INTERCEPTS AS SHOWN ON THE CROSS SECTIONS PLUS 5 FEET FOR ROUNDING.

CURB HEIGHTS AT THE END OF CURB AND GUTTER SHALL BE TAPERED FROM 0 TO 4 INCHES OR 0 TO 6 INCHES IN 6 FEET.

CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE. CURB AND GUTTER RADII ARE MEASURED TO THE FLANGE.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS.

BROKEN CONCRETE CONTAINING RE-BAR SHALL NOT BE USED AS RIPRAP OR HEAVY RIPRAP.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED WITH 4-INCH TYPICAL DEPTH.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

REMOVAL OF EROSION CONTROL DEVICES IS INCLUDED IN THE COST OF THEIR RESPECTIVE BID ITEMS.

THE EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED, MULCHED AND SEEDED AS DIRECTED BY THE ENGINEER.

PLACE TOPSOIL SPECIAL IN ALL GRADED AREAS AS DESIGNATED BY THE ENGINEER IMMEDIATELY AFTER GRADING HAS BEEN COMPLETED. SEED, MULCH AND FERTILIZE ALL AREAS 10 DAYS AFTER PLACEMENT OF TOPSOIL SPECIAL.

AREAS, INCLUDING STOCKPILES, THAT ARE GRADED OR DISTURBED, SHALL BE TEMPORARILY SEEDED WITHIN 7 DAYS

INLET PROTECTION IS REQUIRED AT ALL INLETS AS PER DETAIL OR AS DIRECTED BY THE ENGINEER.

FERTILIZER SHALL NOT BE USED NEAR NAVIGABLE WATERWAYS OR WETLANDS.

CONCRETE MEDIAN SLOPED NOSE SHALL BE CONSTRUCTED FOR ALL MEDIAN OPENINGS AT INTERSECTIONS WITH CURB & GUTTER.

HMA PAVEMENT AND CONCRETE DRIVEWAYS AND/OR PARKING LOTS SHALL BE SAWCUT AT THE MATCHLINE AS SHOWN ON THE PAVING DETAILS OR AS DIRECTED BY THE ENGINEER.

DESIGN, PLANS, SPECIFICATIONS AND ESTIMATE FOR LIGHTING, FTMS, ATR AND PERMANENT MAINLINE SIGNING PROVIDED BY WISDOT SE REGION. DESIGN, PLANS, SPECIFICATIONS AND ESTIMATE FOR ALL REMAINING ITEMS PROVIDED BY, OR UNDER THE DIRECT SUPERVISION OF, MILWAUKEE TRANSPORTATION PARTNERS.

A CONVERSION FACTOR OF 1.8 TONS/CY IS USED TO ESTIMATE QUANTITIES FOR SELECT CRUSHED MATERIAL.

A CONVERSION FACTOR OF 2.10 TONS/CY IS USED TO ESTIMATE QUANTITIES FOR BASE AGGREGATE DENSE.

A CONVERSION FACTOR OF 115 LB/SY/IN IS USED TO ESTIMATE QUANTITIES FOR HMA PAVEMENT.

ALL TYPES OF HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	NOMINAL MAXIMUM SIZE GRADATION	ASPHALTIC MATERIAL
ASPHALTIC BASE	3"	3"	25.0 MM	
ASPHALTIC SURFACE TEMPORARY	5"	5"	25.0 MM	
E-10	7.5"	2" UPPER LAYER 2 3/4" LOWER LAYER 2 3/4" LOWER LAYER	12.5 MM 19.0 MM 19.0 MM	PG-64-28 PG-64-22 PG-64-22

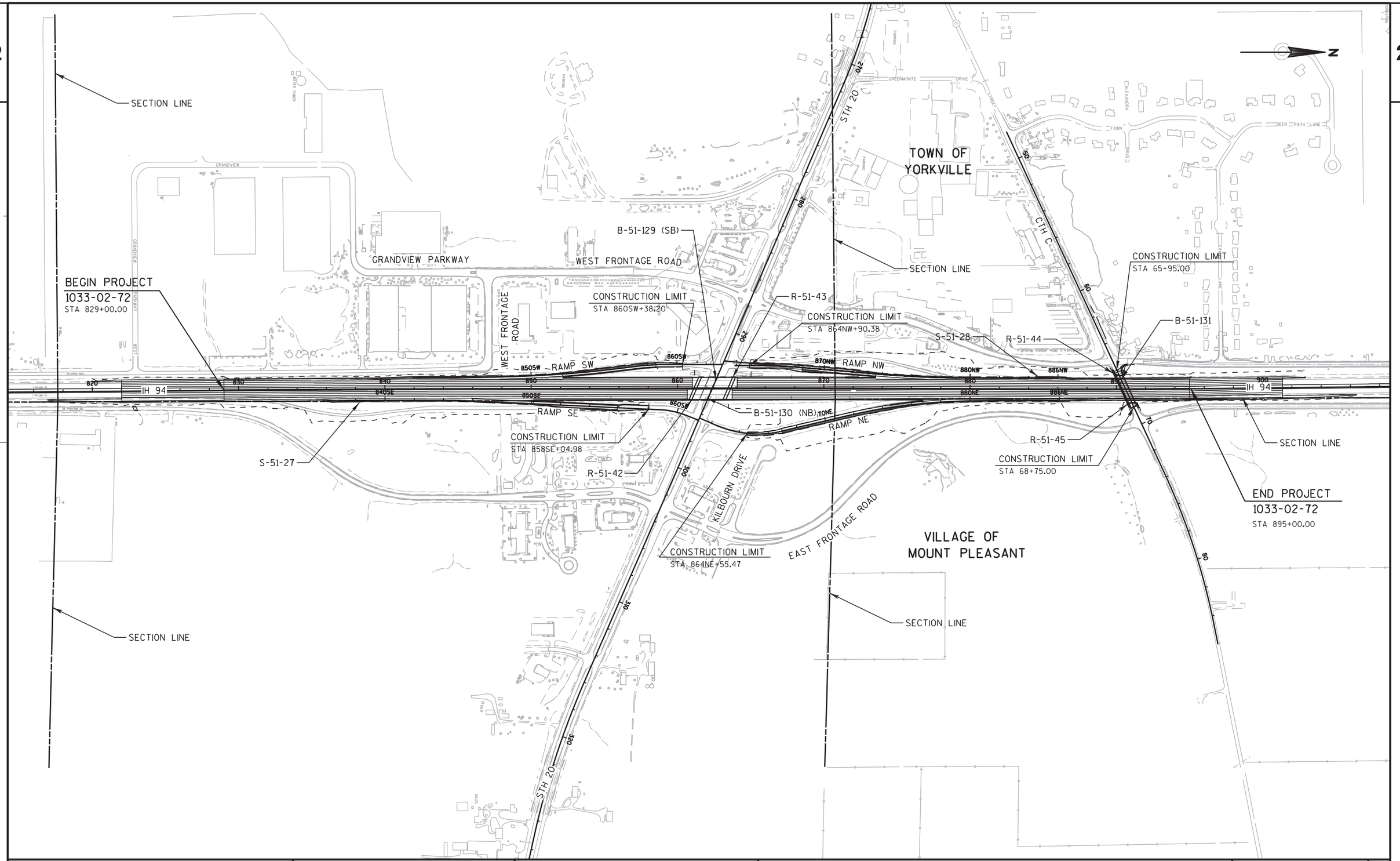
THE CONTRACTOR SHALL PROVIDE A CONCRETE JOINT DETAIL 14 DAYS PRIOR TO PAVING FOR APPROVAL BY THE ENGINEER.

ALL EXISTING STREET NAME SIGNS WILL BE REMOVED AND REPLACED BY THE VILLAGE OF MOUNT PLEASANT AND THE TOWN OF YORKVILLE AS DIRECTED BY THE ENGINEER. COVERING SIGNS IS INCLUDED IN THE COST OF 643.0100 TRAFFIC CONTROL ITEM.

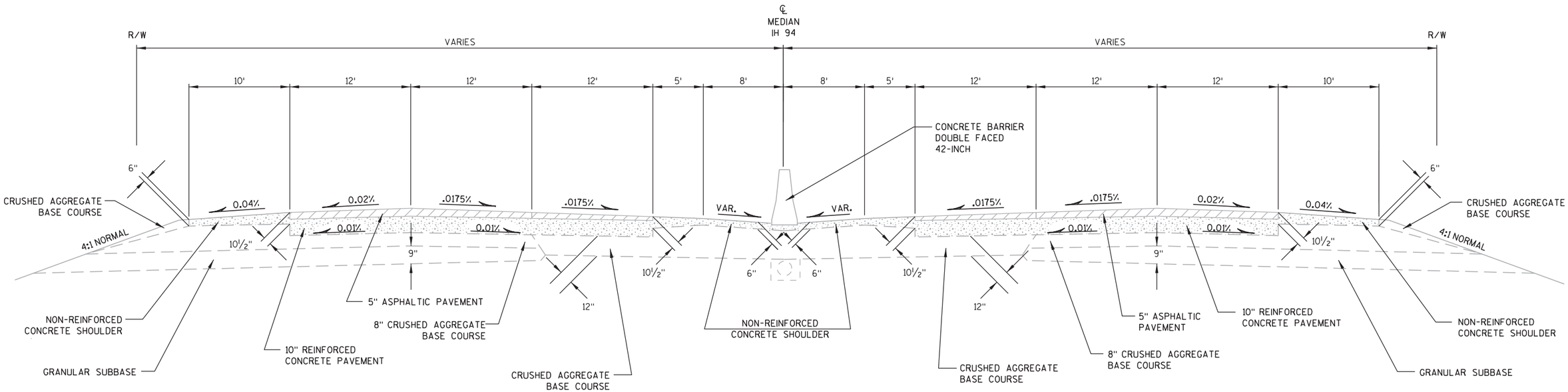
STANDARD ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L OR	CENTER OR CONSTUCTION LINE
CMCP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC-YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASMENT
PT	POINT OF TANGENT
PVC	POLYVINYL CHLORIDE
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCE CONCRETE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SALV	SALVAGED
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SSPRCHE	PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT

2



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PROJECT OVERVIEW	SHEET	E

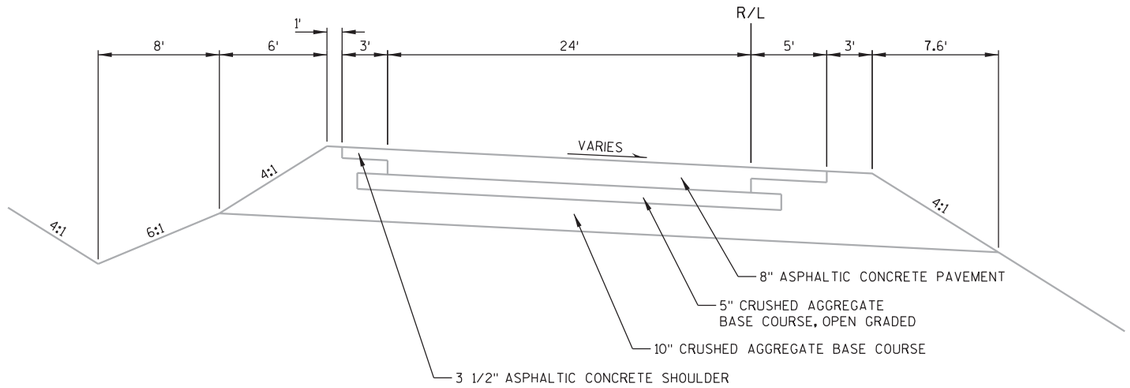


TYPICAL EXISTING SECTION

IH 94

STA 829+00 TO STA 895+00

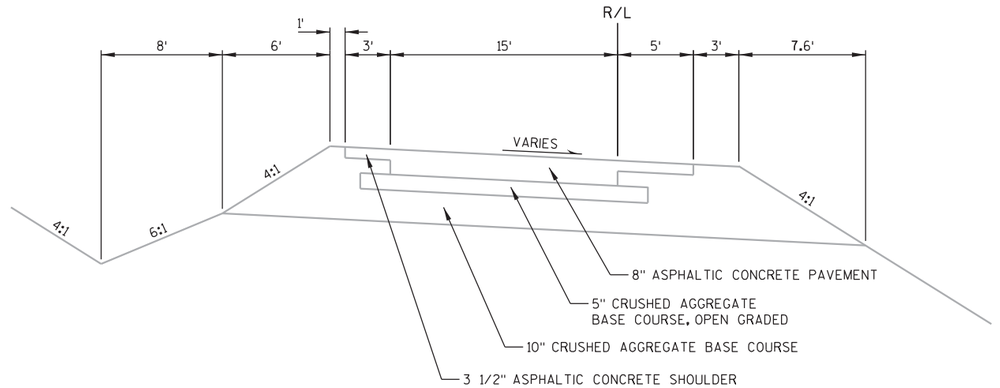
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E



TYPICAL EXISTING SECTION

RAMP SE
RAMP NW

STA 830SE+50 TO STA 858SE+05
STA 864NW+96 TO STA 880NW+23



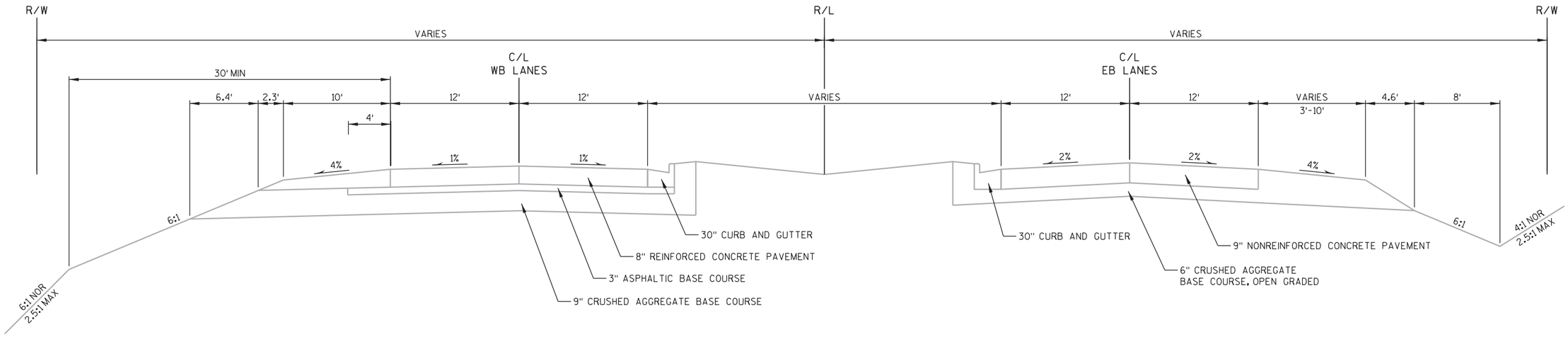
TYPICAL EXISTING SECTION

RAMP SW
RAMP NE

STA 842SW+00 TO STA 860SW+38
STA 864NE+55 TO STA 886NE+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E

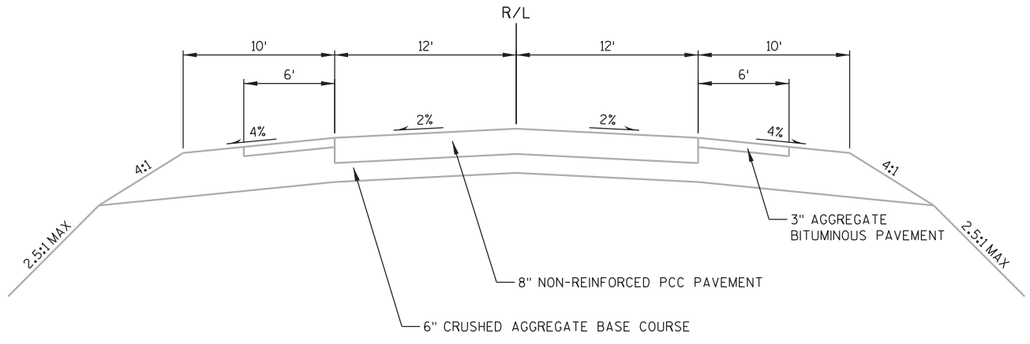
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TYPICAL EXISTING SECTION

STH 20

STA 273+00 TO STA 321+00



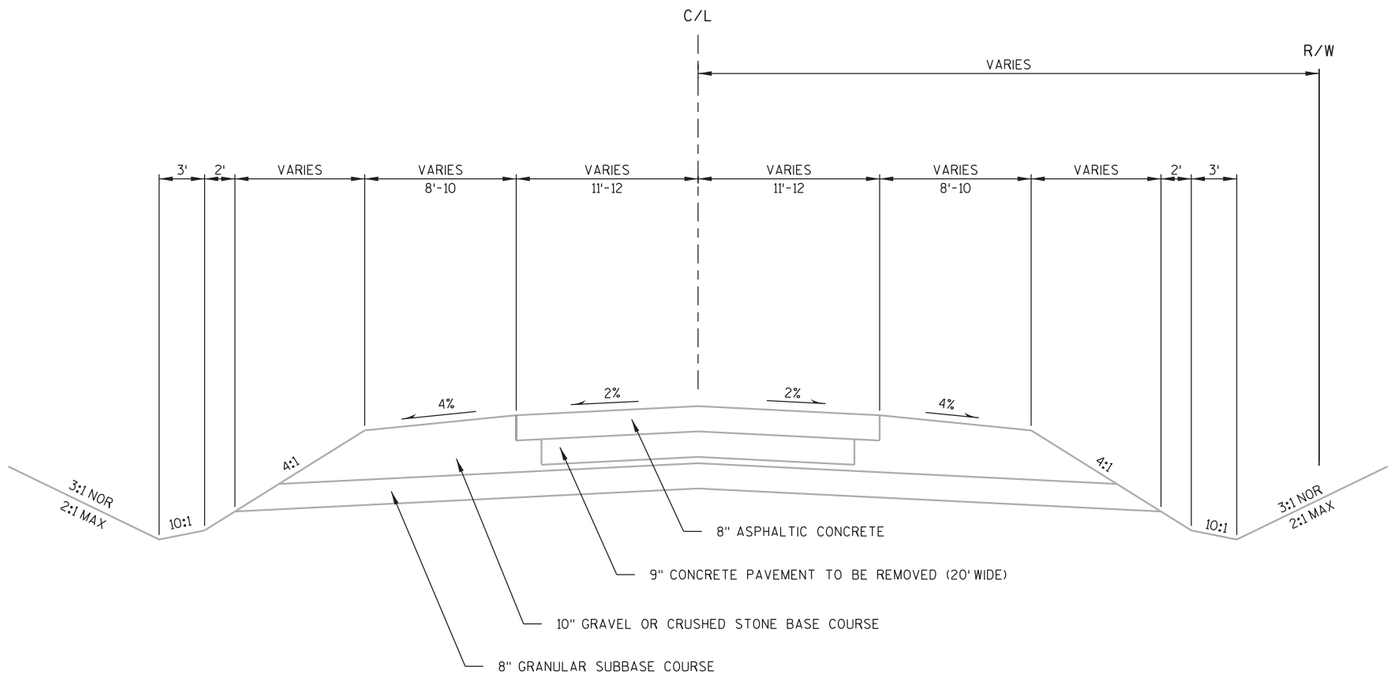
TYPICAL EXISTING SECTION

CTH C

STA 65+95 TO STA 68+75

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E

2



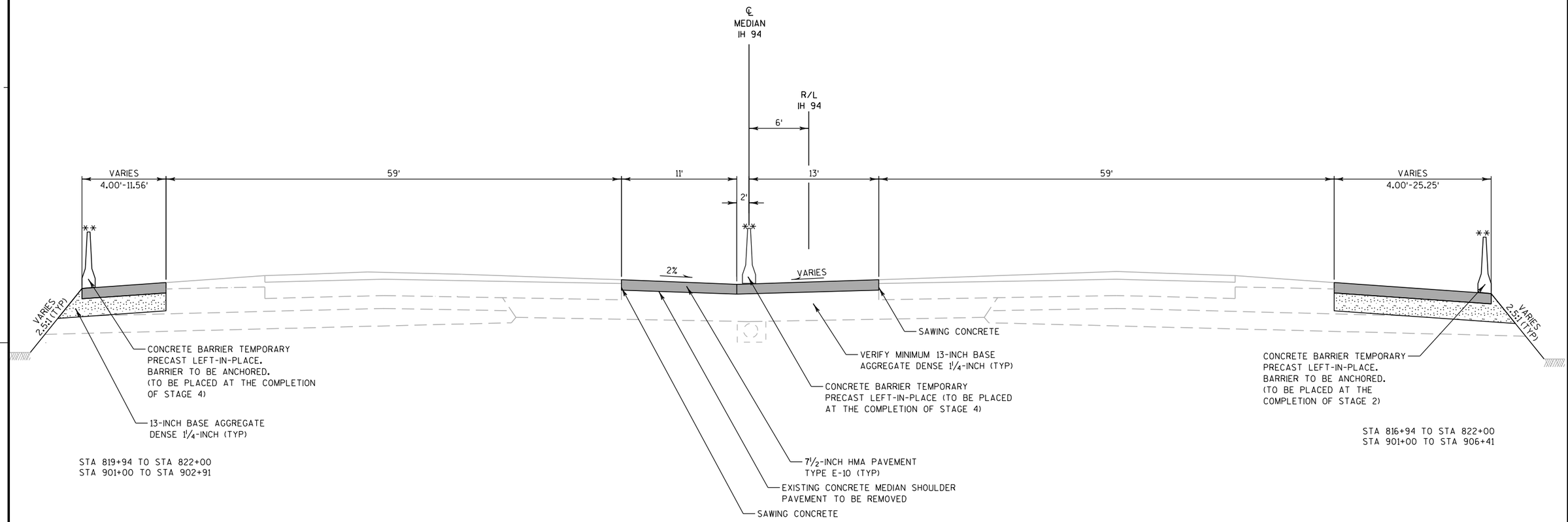
TYPICAL EXISTING SECTION

EAST FRONTAGE ROAD

SOUTH OF STH 20
STA 822+70 TO STA 823+10

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E

2



STA 819+94 TO STA 822+00
STA 901+00 TO STA 902+91

STA 810+00 TO STA 822+00
STA 901+35 TO STA 913+35

STA 816+94 TO STA 822+00
STA 901+00 TO STA 906+41

TYPICAL FINISHED SECTION

IH 94

STA 810+00 TO STA 822+00
STA 901+35 TO STA 913+35

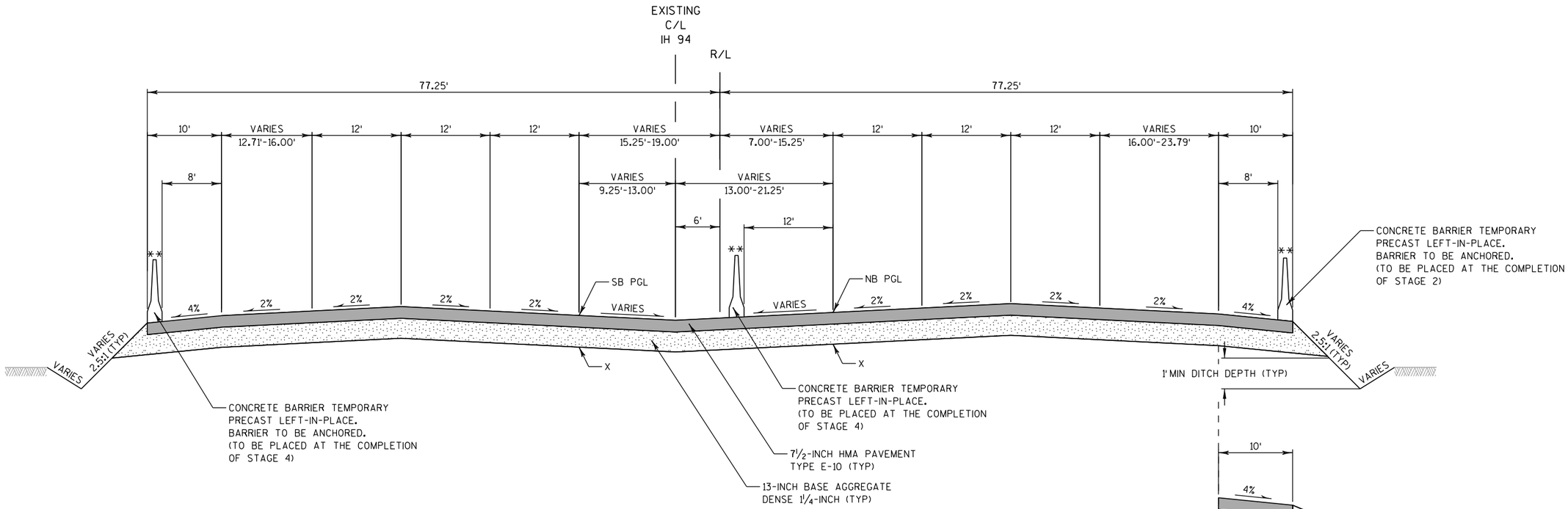
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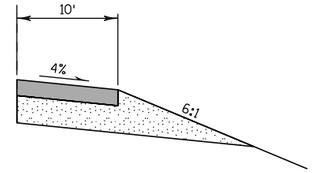
PAVEMENT SUBGRADE IMPROVEMENT FOR MAINLINE ROADWAY AREAS: ACTUAL LOCATIONS DEPENDENT ON FIELD CONDITIONS DURING GRADING OPERATIONS. GEOGRID REINFORCEMENT AND FILL MATERIAL SHALL NOT BE PLACED UNTIL AUTHORIZED BY THE ENGINEER OR SOILS ENGINEER.

** PLACE DELINEATORS REFLECTORS AND DELINEATORS BRACKETS ON TOP OF BARRIER TYPE S42 WITH SPACING 100'

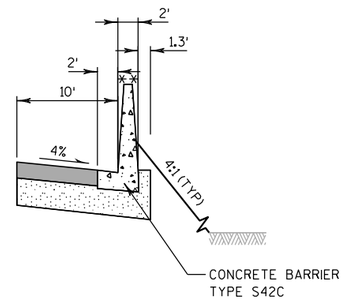
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E

2





STA 826+00.00 TO STA 829+00.00



STA 895+00.00 TO STA 897+50.00

NOTES

PAVEMENT SUBGRADE IMPROVEMENT FOR MAINLINE ROADWAY AREAS: ACTUAL LOCATIONS DEPENDENT ON FIELD CONDITIONS DURING GRADING OPERATIONS. GEOGRID REINFORCEMENT AND FILL MATERIAL SHALL NOT BE PLACED UNTIL AUTHORIZED BY THE ENGINEER OR SOILS ENGINEER.

** PLACE DELINEATORS REFLECTORS AND DELINEATORS BRACKETS ON TOP OF BARRIER TYPE S42 WITH SPACING 100'

5" EXISTING ASPHALTIC PAVEMENT TO BE MILLED AND REMOVED
10" EXISTING REINFORCED CONCRETE PAVEMENT TO BE REMOVED
EXISTING CONCRETE SHOULDERS TO BE REMOVED

TYPICAL FINISHED SECTION

IH 94

STA 822+00 TO STA 829+00
STA 895+00 TO STA 901+35

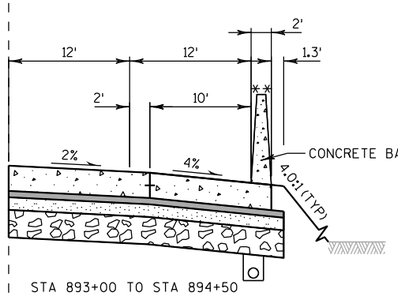
NOTE:

PGL = POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION

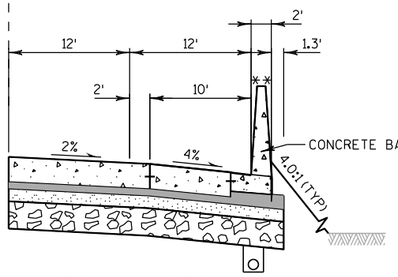
X = POINT REFERRED TO ON CROSS SECTION

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E

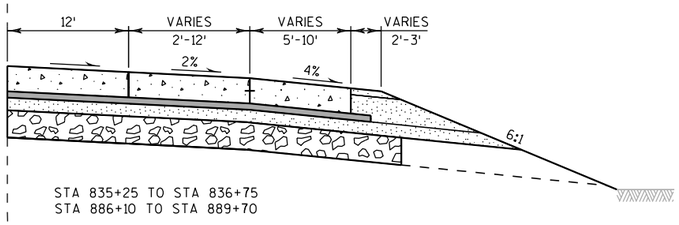
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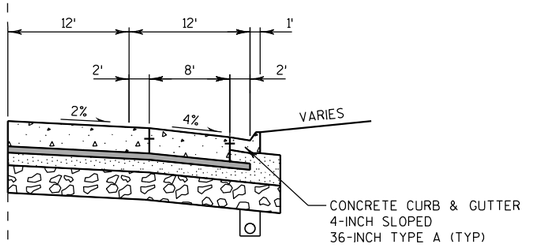
STA 893+00 TO STA 894+50



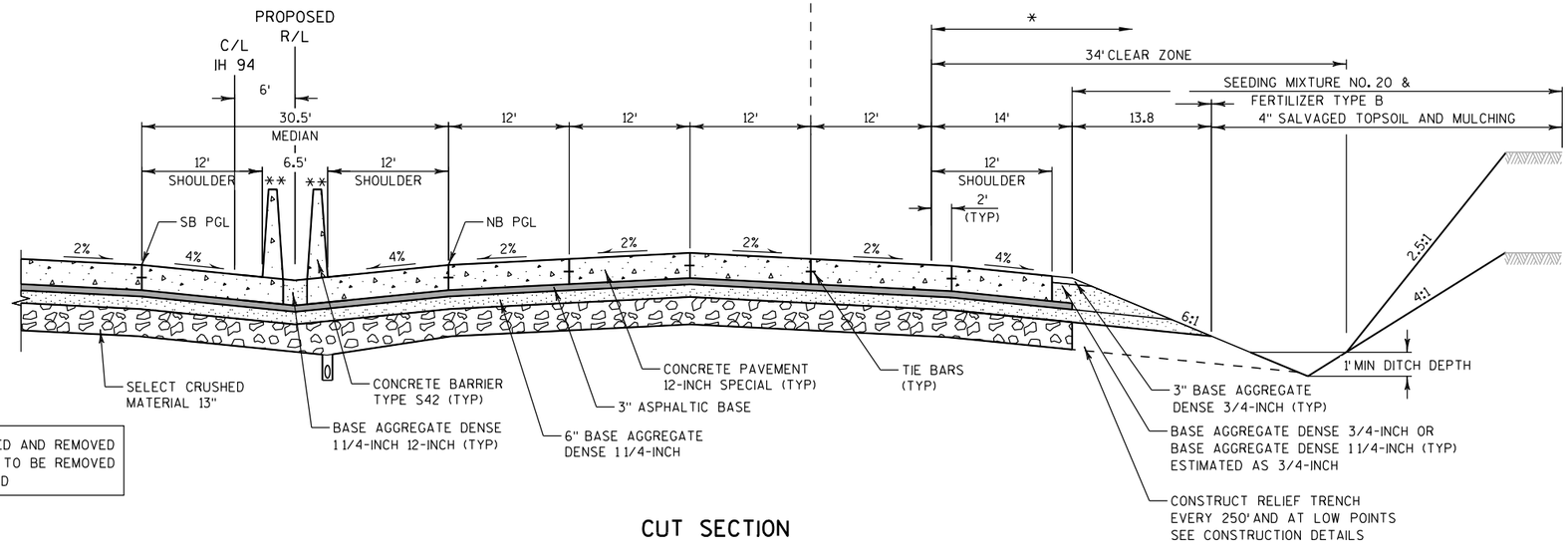
STA 894+50 TO STA 895+00



STA 835+25 TO STA 836+75
STA 886+10 TO STA 889+70



STA 874+50 TO STA 876+78
STA 890+50 TO STA 893+00



5" EXISTING ASPHALTIC PAVEMENT TO BE MILLED AND REMOVED
10" EXISTING REINFORCED CONCRETE PAVEMENT TO BE REMOVED
EXISTING CONCRETE SHOULDERS TO BE REMOVED

CUT SECTION

TYPICAL FINISHED SECTION

IH 94 NORTHBOUND
(HALF SECTION)

STA 829+00 TO STA 849+73
STA 874+12 TO STA 895+00

NOTES

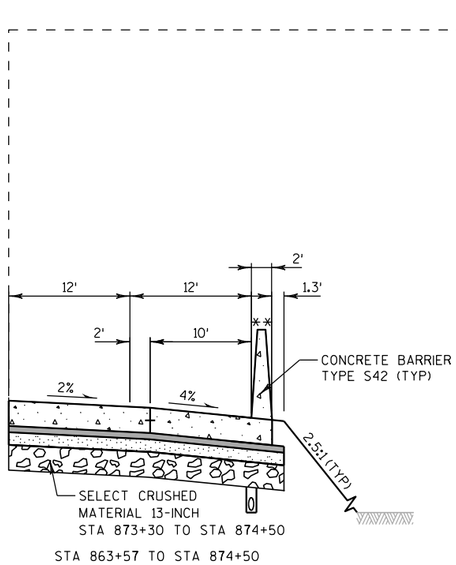
PAVEMENT SUBGRADE IMPROVEMENT FOR MAINLINE ROADWAY AREAS: ACTUAL LOCATIONS DEPENDENT ON FIELD CONDITIONS DURING GRADING OPERATIONS. GEOGRID REINFORCEMENT AND FILL MATERIAL SHALL NOT BE PLACED UNTIL AUTHORIZED BY THE ENGINEER OR SOILS ENGINEER.

* SEE RAMP TYPICALS FOR RAMP SECTIONS PARALLEL TO IH 94
RAMP SE STA 836+75 TO STA 848+70
RAMP NE STA 876+78 TO STA 886+10

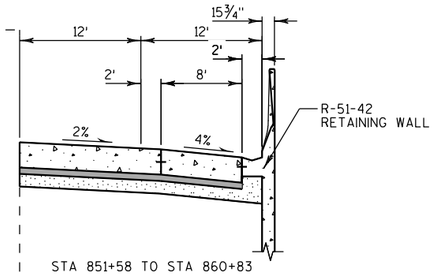
** PLACE DELINEATORS REFLECTORS AND DELINEATORS BRACKETS ON TOP OF BARRIER TYPE S42 WITH SPACING 100'

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E

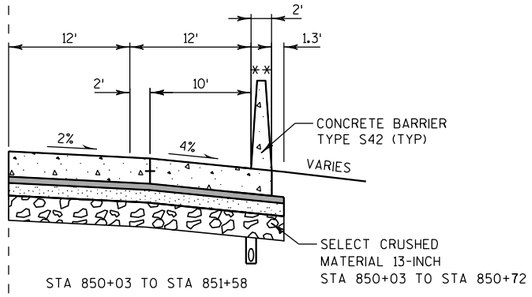
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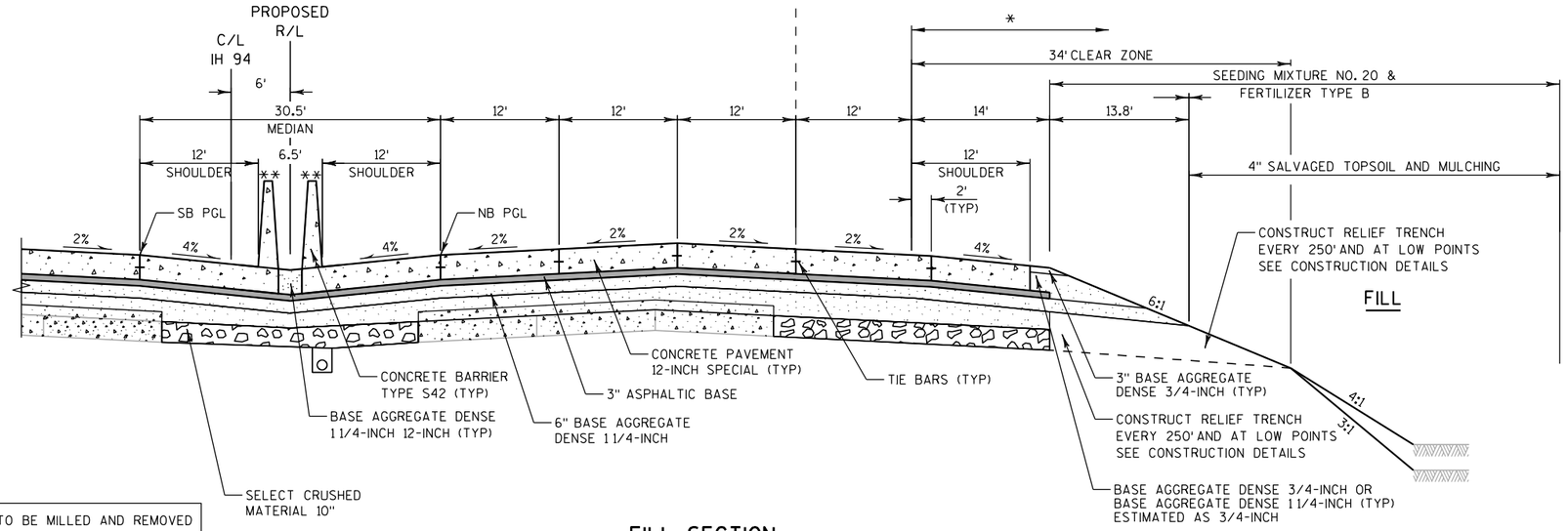
STA 863+57 TO STA 874+50



STA 851+58 TO STA 860+83



STA 850+03 TO STA 851+58



FILL SECTION

5" EXISTING ASPHALTIC PAVEMENT TO BE MILLED AND REMOVED
EXISTING CONCRETE SHOULDERS TO BE REMOVED
10" EXISTING REINFORCED CONCRETE PAVEMENT
TO BE RUBBELIZED.

TYPICAL FINISHED SECTION

IH 94 NORTHBOUND
(HALF SECTION)

STA 849+73 TO STA 860+83
STA 863+58 TO STA 874+12

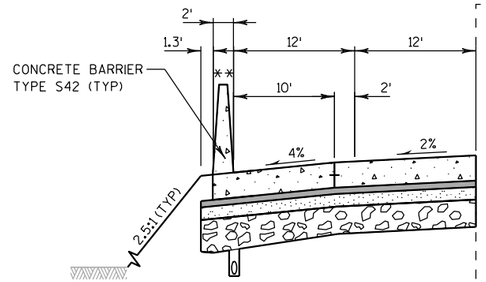
SELECT CRUSHED MATERIAL 10-INCH (MATCH ADJACENT
TO EXISTING REINFORCED CONCRETE PAVEMENT)
STA 849+73 TO STA 850+72
STA 873+30 TO STA 874+12.

NOTES

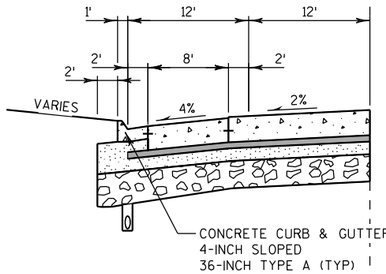
PAVEMENT SUBGRADE IMPROVEMENT FOR MAINLINE ROADWAY AREAS: ACTUAL LOCATIONS DEPENDENT ON FIELD CONDITIONS DURING GRADING OPERATIONS. GEOGRID REINFORCEMENT AND FILL MATERIAL SHALL NOT BE PLACED UNTIL AUTHORIZED BY THE ENGINEER OR SOILS ENGINEER.

* SEE RAMP TYPICALS FOR RAMP SECTIONS PARALLEL TO IH 94
RAMP SE STA 848+70 TO STA 850+03

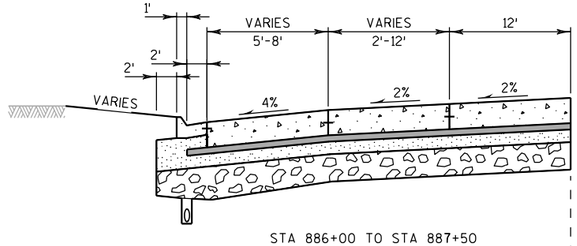
** PLACE DELINEATORS REFLECTORS AND DELINEATORS
BRACKETS ON TOP OF BARRIER TYPE S42 WITH SPACING 100'



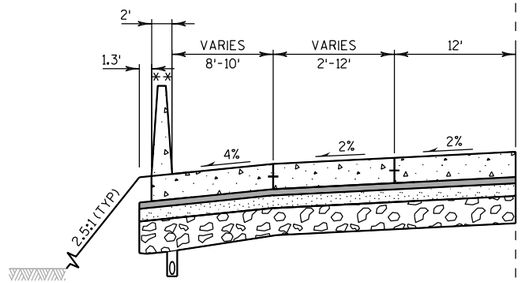
STA 829+00 TO STA 838+25



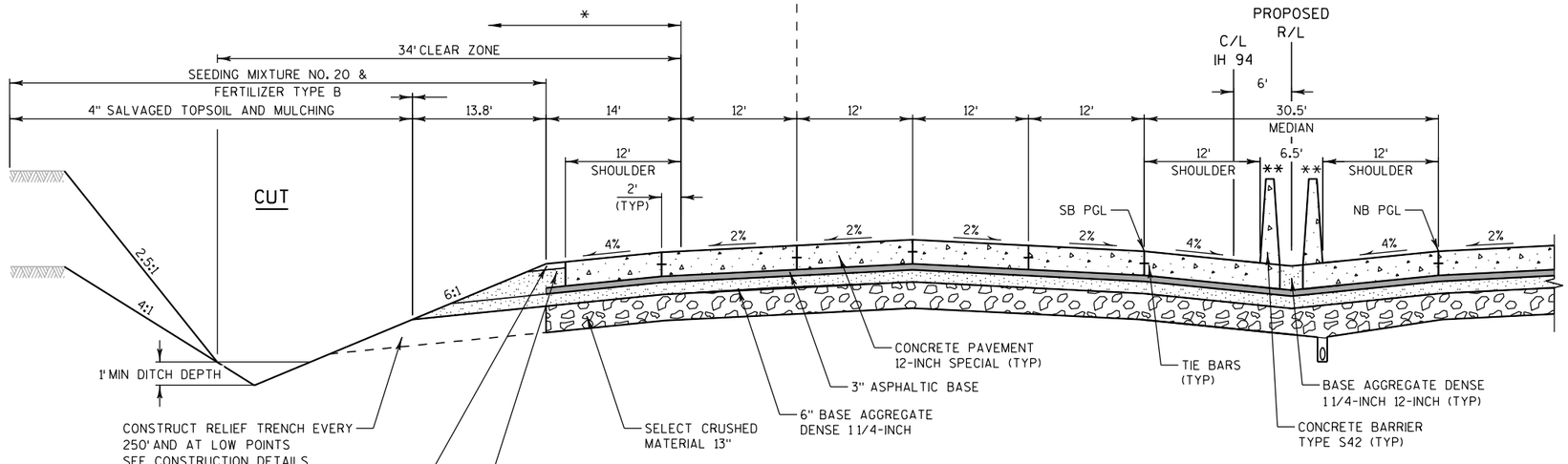
STA 885+00 TO STA 886+00
STA 887+50 TO STA 895+00



STA 886+00 TO STA 887+50



STA 838+25 TO STA 841+85



CUT SECTION

TYPICAL FINISHED SECTION

IH 94 SOUTHBOUND

(HALF SECTION)

STA 829+00 TO STA 849+73
STA 874+12 TO STA 886+00

NOTES

PAVEMENT SUBGRADE IMPROVEMENT FOR MAINLINE ROADWAY AREAS: ACTUAL LOCATIONS DEPENDENT ON FIELD CONDITIONS DURING GRADING OPERATIONS. GEOGRID REINFORCEMENT AND FILL MATERIAL SHALL NOT BE PLACED UNTIL AUTHORIZED BY THE ENGINEER OR SOILS ENGINEER.

* SEE RAMP TYPICALS FOR RAMP SECTIONS PARALLEL TO IH 94
RAMP NW STA 873+55 TO STA 886+00
RAMP SW STA 841+85 TO STA 849+73

** PLACE DELINEATORS REFLECTORS AND DELINEATORS BRACKETS ON TOP OF BARRIER TYPE S42 WITH SPACING 100'

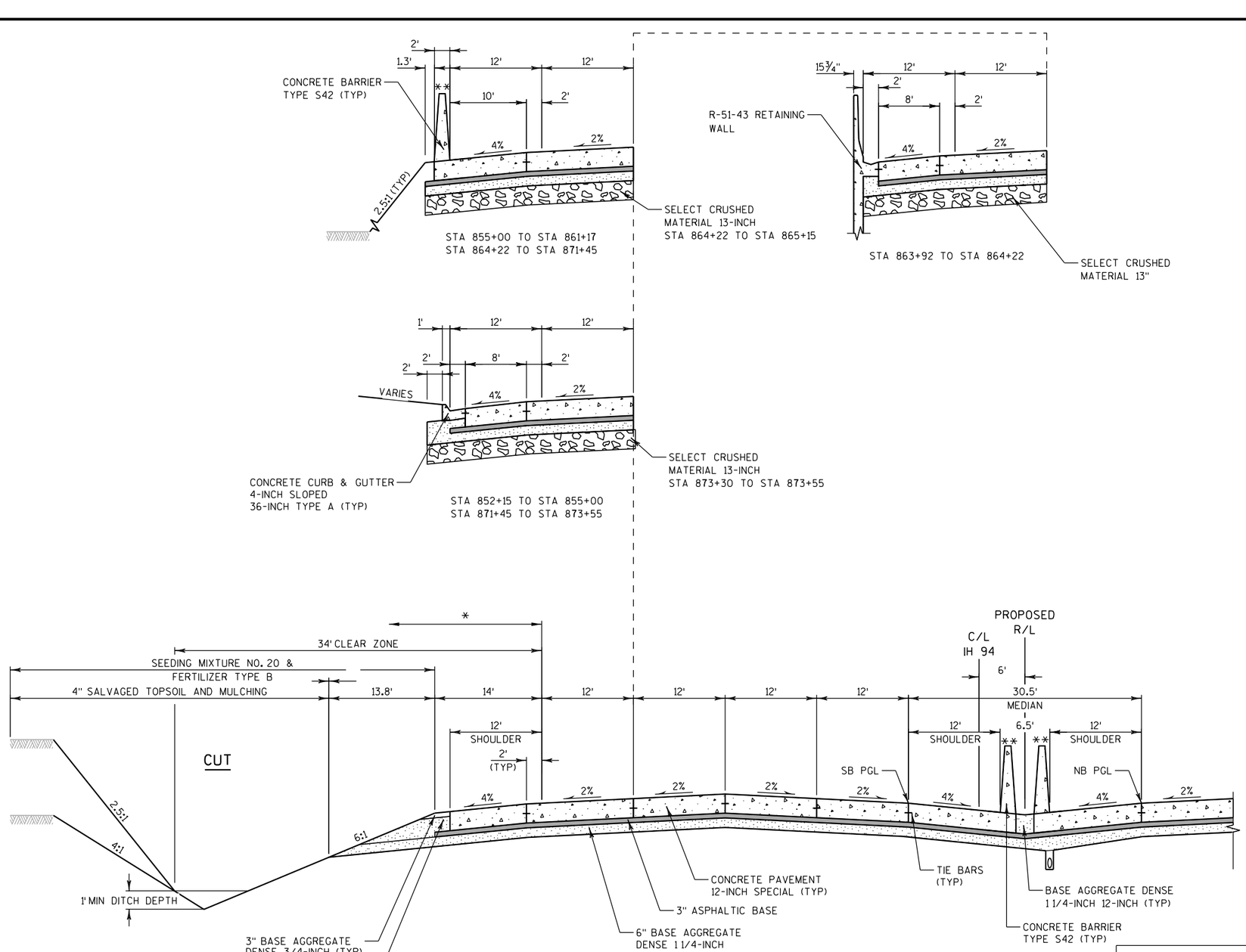
5" EXISTING ASPHALTIC PAVEMENT TO BE MILLED AND REMOVED
10" EXISTING REINFORCED CONCRETE PAVEMENT TO BE REMOVED
EXISTING CONCRETE SHOULDERS TO BE REMOVED

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E

STA 855+00 TO STA 861+17
STA 864+22 TO STA 871+45

STA 863+92 TO STA 864+22

STA 852+15 TO STA 855+00
STA 871+45 TO STA 873+55



FILL SECTION GREATER THAN ONE FOOT

TYPICAL FINISHED SECTION

IH 94 SOUTHBOUND

(HALF SECTION)

STA 849+73 TO STA 861+17
STA 863+92 TO STA 874+12

NOTES

PAVEMENT SUBGRADE IMPROVEMENT FOR MAINLINE ROADWAY AREAS: ACTUAL LOCATIONS DEPENDENT ON FIELD CONDITIONS DURING GRADING OPERATIONS. GEOGRID REINFORCEMENT AND FILL MATERIAL SHALL NOT BE PLACED UNTIL AUTHORIZED BY THE ENGINEER OR SOILS ENGINEER.

* SEE RAMP TYPICALS FOR RAMP SECTIONS PARALLEL TO IH 94
RAMP NW STA 873+55 TO STA 874+12
RAMP SW STA 849+73 TO STA 852+15

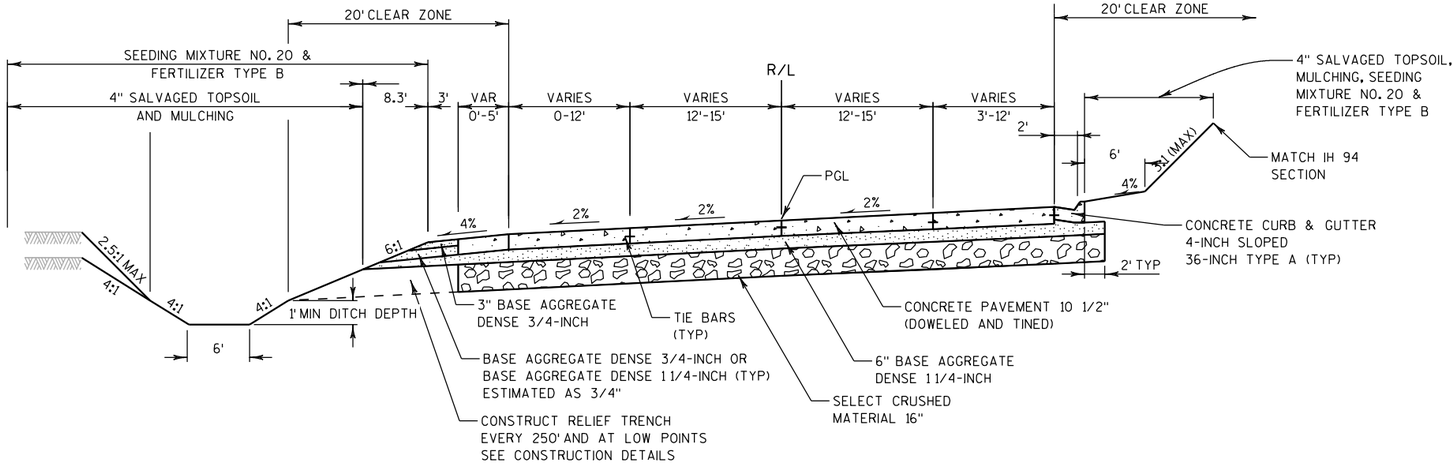
** PLACE DELINEATORS REFLECTORS AND DELINEATORS BRACKETS ON TOP OF BARRIER TYPE S42 WITH SPACING 100'

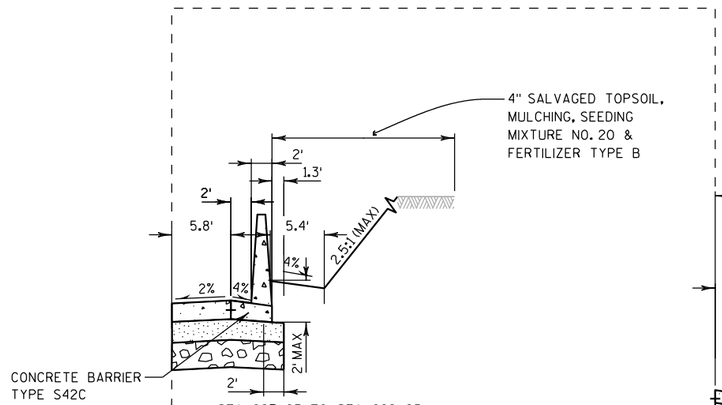
5" EXISTING ASPHALTIC PAVEMENT TO BE MILLED AND REMOVED
EXISTING CONCRETE SHOULDERS TO BE REMOVED

SELECT CRUSHED MATERIAL 10-INCH (MATCH ADJACENT TO EXISTING REINFORCED CONCRETE PAVEMENT)
STA 849+73 TO STA 850+72
STA 873+30 TO STA 874+12

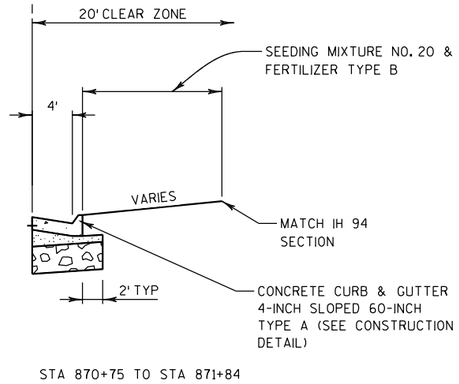
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E

2





STA 867+23 TO STA 868+95



STA 870+75 TO STA 871+84

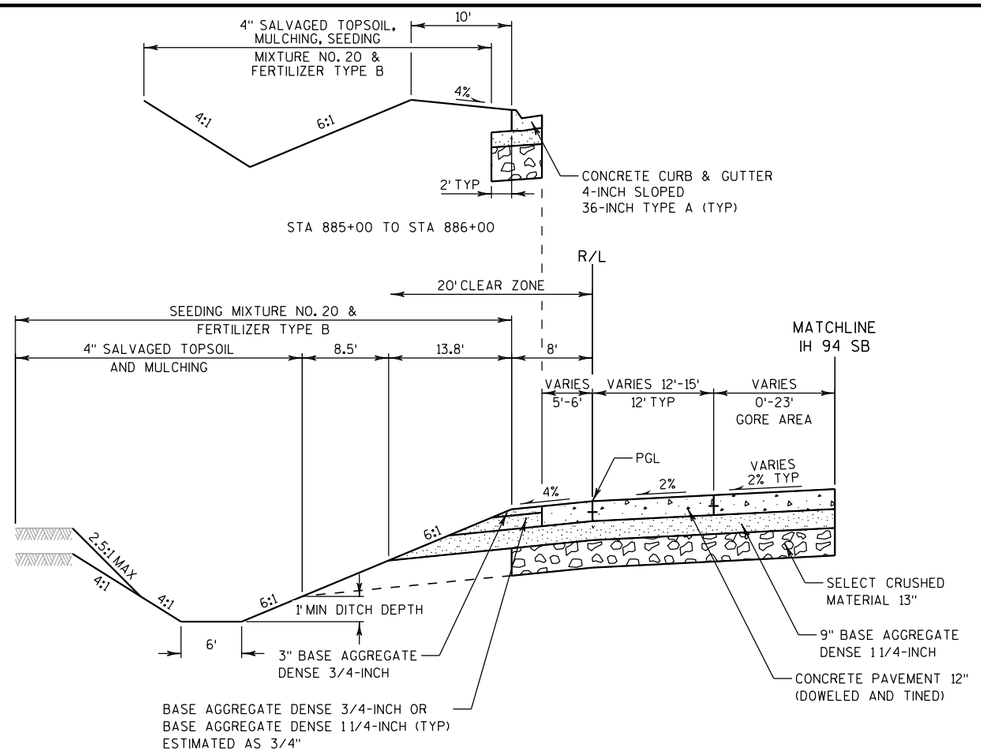
TYPICAL FINISHED SECTION

RAMP NW

STA 868+51 TO STA 871+84

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E

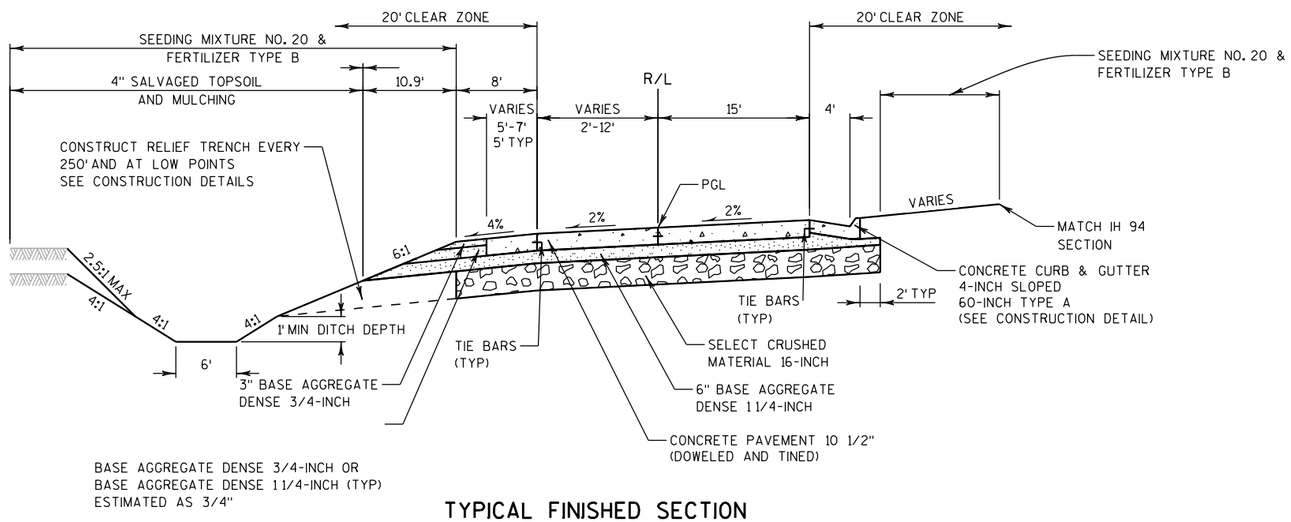
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TYPICAL FINISHED SECTION

RAMP NW

STA 873+55 TO STA 886+00

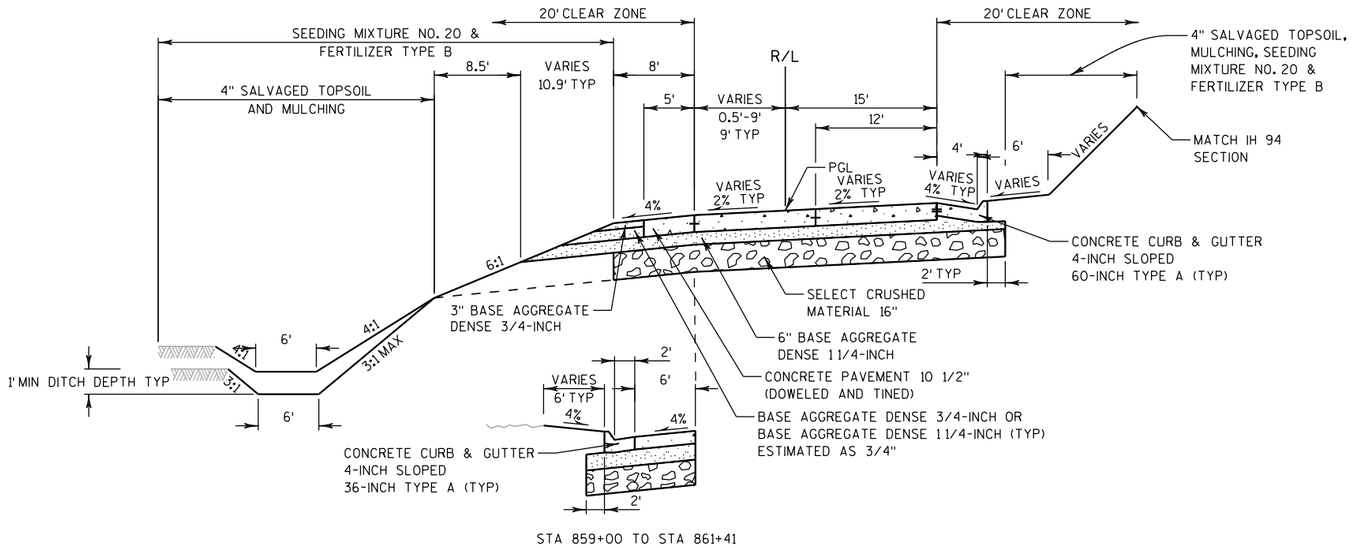


TYPICAL FINISHED SECTION

RAMP NW

STA 871+84 TO STA 873+55

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E

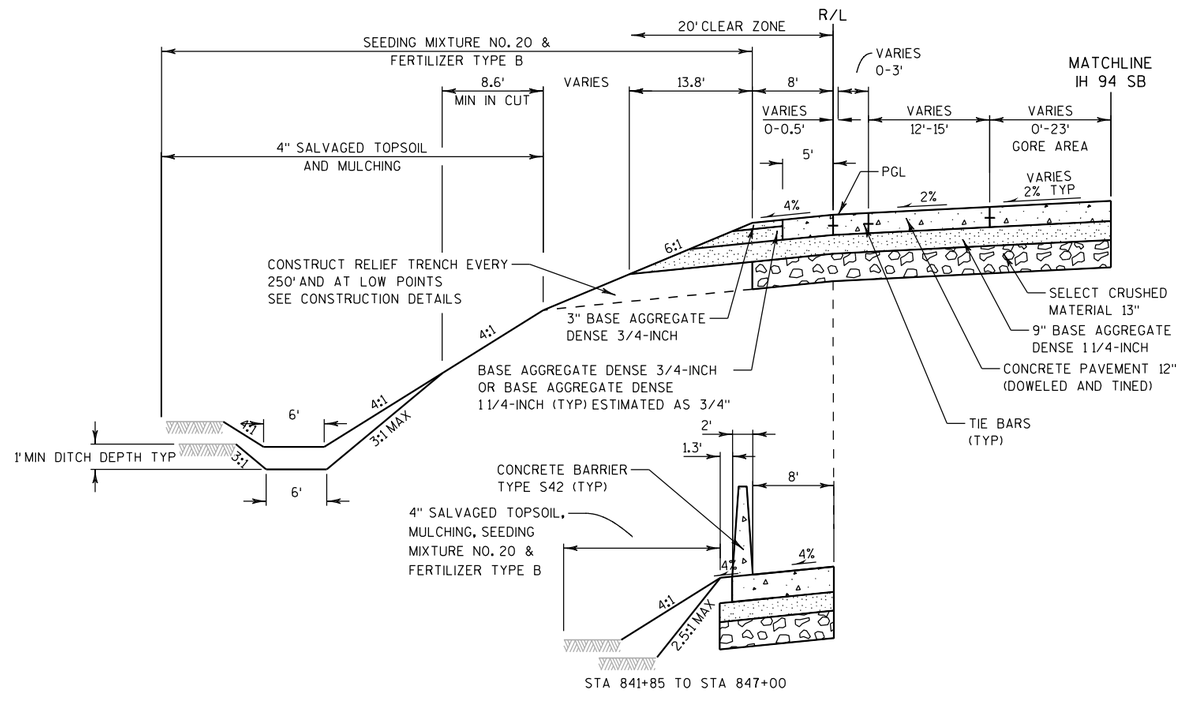


STA 859+00 TO STA 861+41

TYPICAL FINISHED SECTION

RAMP SW

STA 852+15 TO STA 861+41



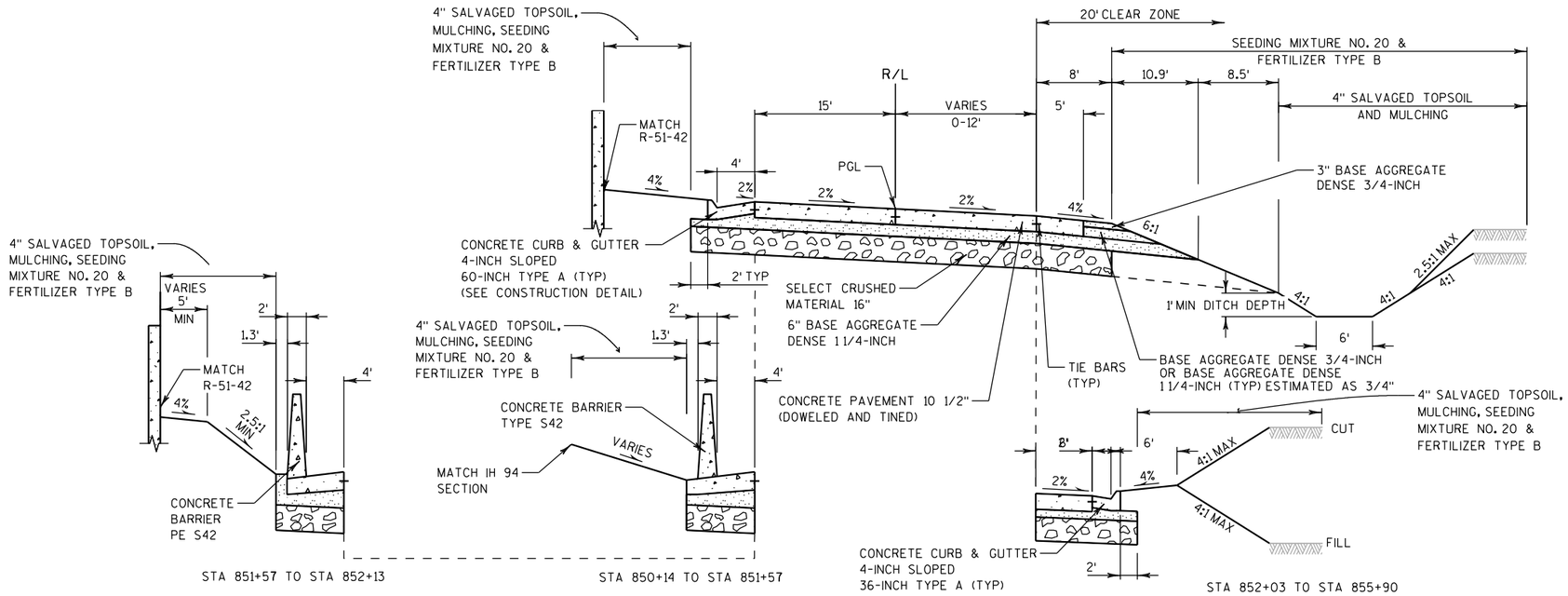
STA 841+85 TO STA 847+00

TYPICAL FINISHED SECTION

RAMP SW

STA 841+85 TO STA 852+15

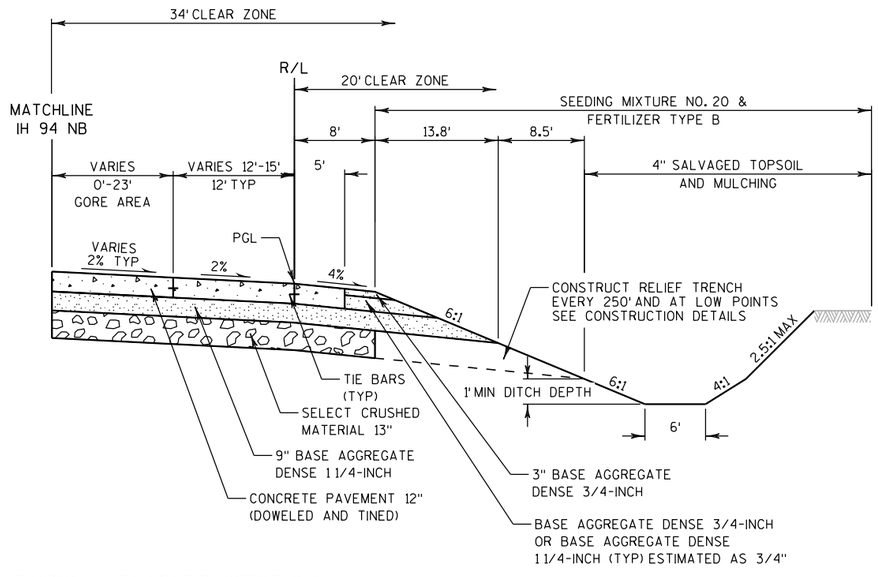
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E



TYPICAL FINISHED SECTION

RAMP SE

STA 850+14 TO STA 855+90

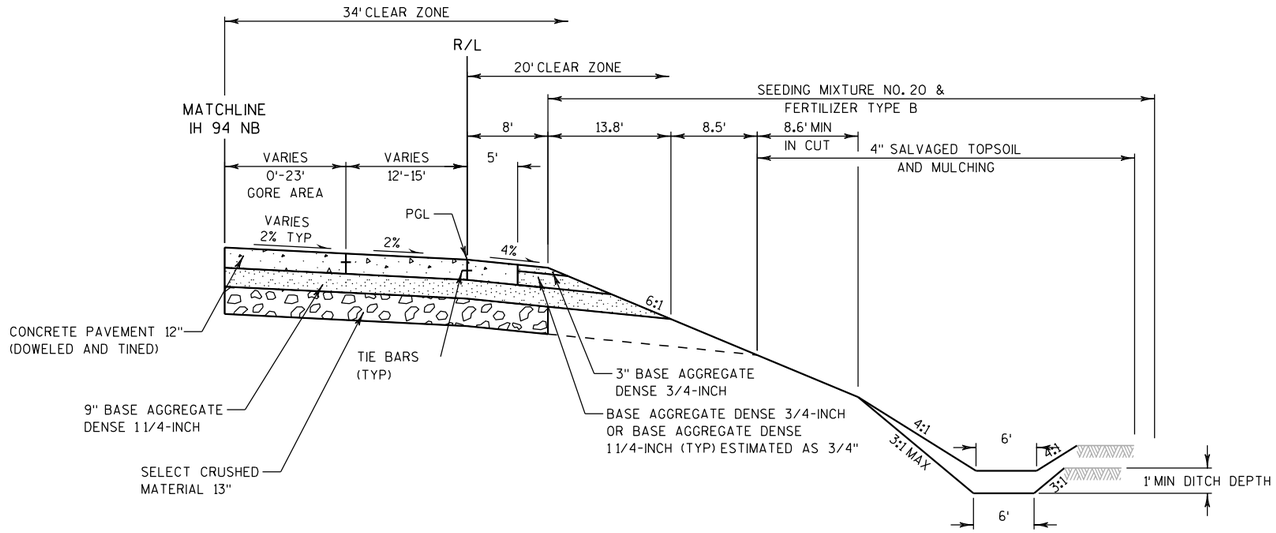


TYPICAL FINISHED SECTION

RAMP SE

STA 836+75 TO STA 850+14

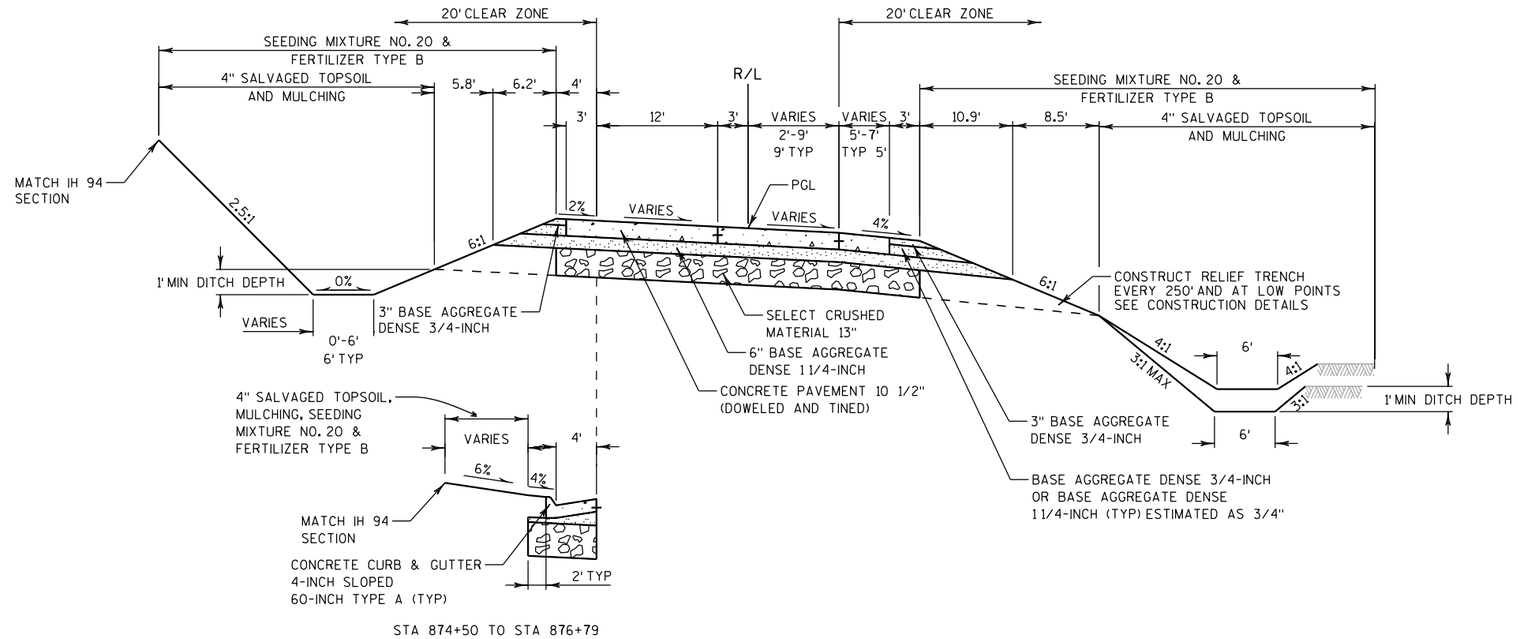
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E



TYPICAL FINISHED SECTION

RAMP NE

STA 876+79 TO STA 886+10



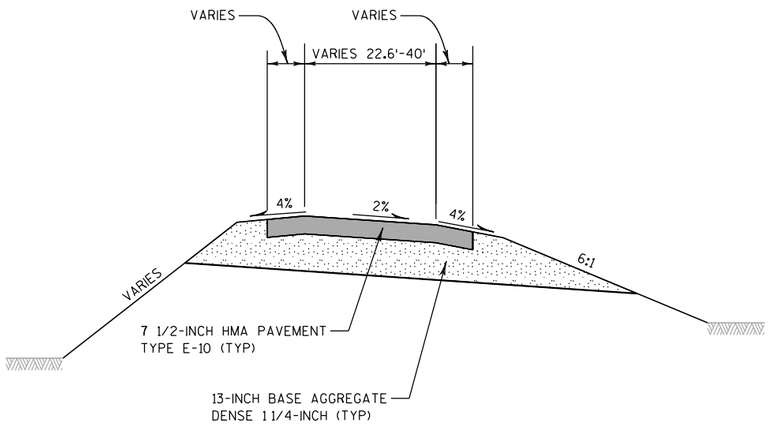
STA 874+50 TO STA 876+79

TYPICAL FINISHED SECTION

RAMP NE

STA 866+95 TO STA 876+79

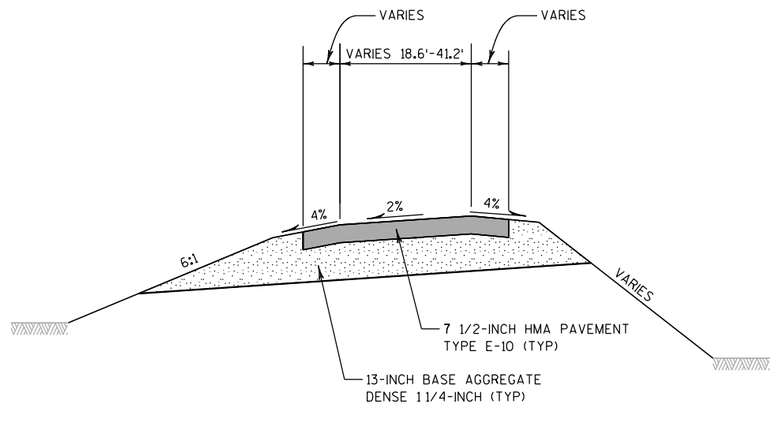
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E



TYPICAL FINISHED SECTION

RAMPS NE AND SE

STA 864NE+55 TO STA 866NE+95
STA 855SE+90 TO STA 858SE+05

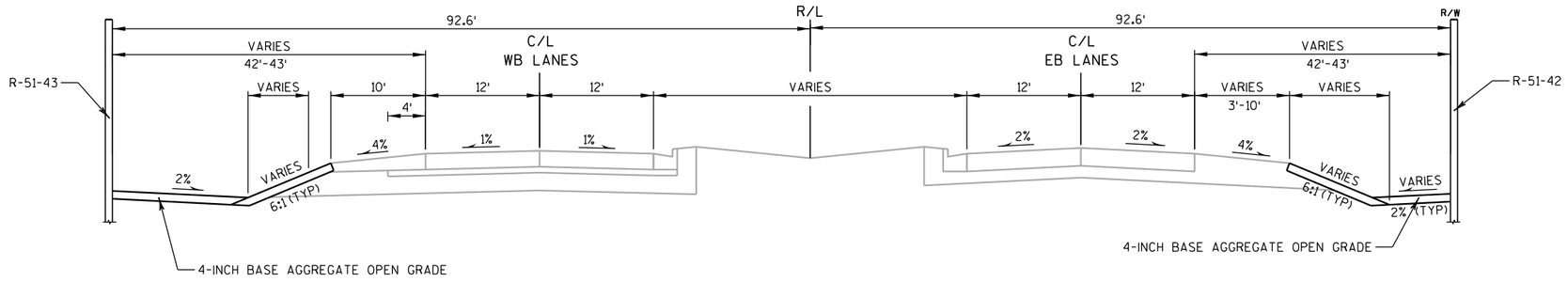


TYPICAL FINISHED SECTION

RAMPS NW AND SW

STA 864NW+96 TO STA 868NW+51
STA 858SW+57 TO STA 860SW+38

2



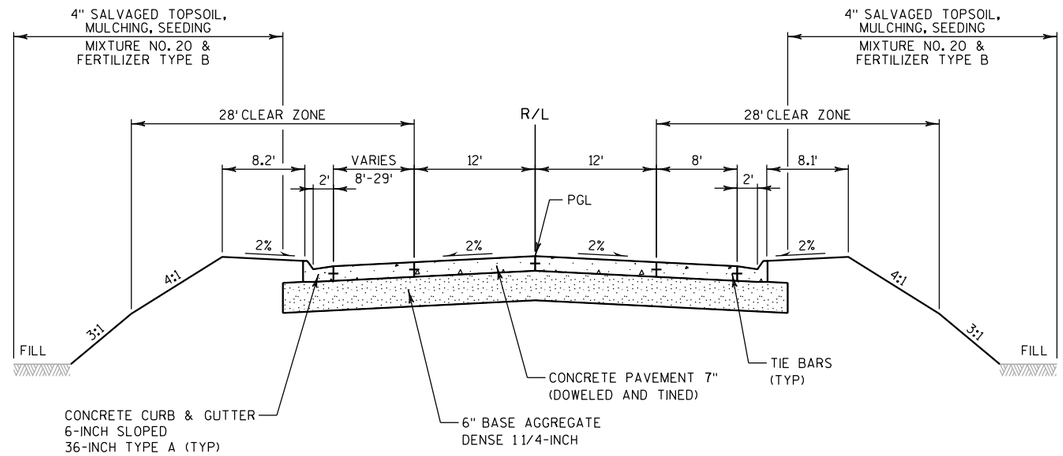
TYPICAL FINISHED SECTION

STH 20

STA 293+00 TO STA 295+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E

2

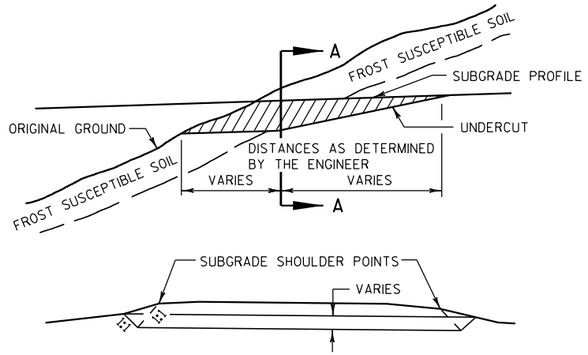


TYPICAL FINISHED SECTION

CTH C

STA 65+95 TO STA 66+10
STA 68+69 TO STA 68+75

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TYPICAL SECTIONS	SHEET	E

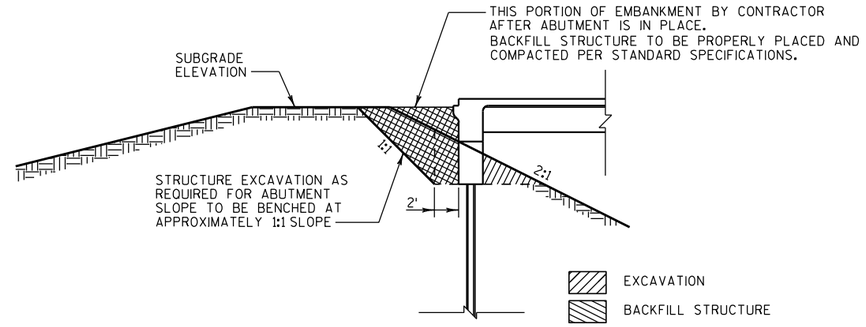


SECTION A-A
CROSS SECTION SHOWING UNDERCUT

NOTES

1. EXACT LOCATIONS AND EXTENT OF EBS SECTIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. EBS AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER.
3. BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.
4. THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL EBS IS COMPLETED.

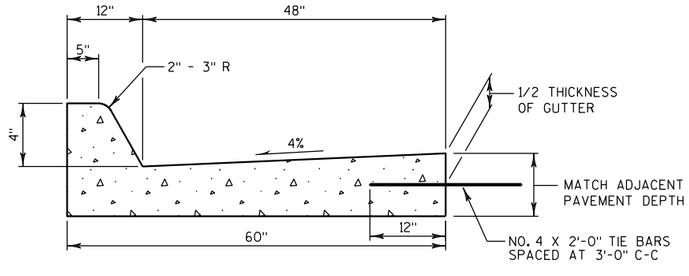
EXCAVATION BELOW SUBGRADE AT CUTS



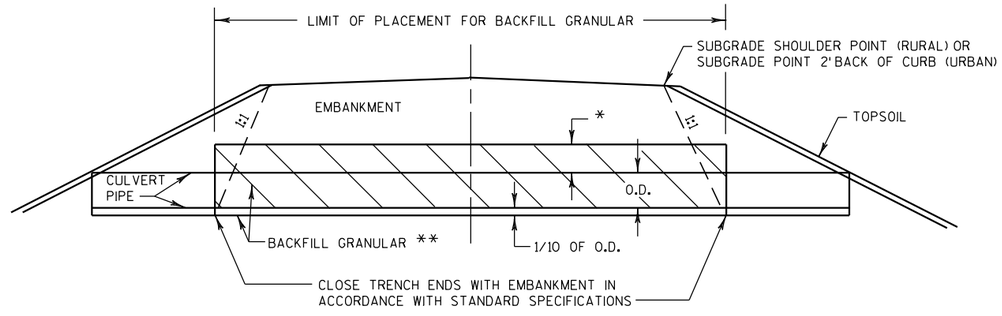
NOTE

THE EMBANKMENT CONFIGURATION SHOWN IS THE MINIMUM EMBANKMENT THAT MUST BE CONSTRUCTED PRIOR TO CONSTRUCTION OF THE ABUTMENTS.

EMBANKMENT CONSTRUCTION & BACKFILL STRUCTURE DETAIL



CONCRETE CURB & GUTTER 4-INCH SLOPED 60-INCH TYPE A



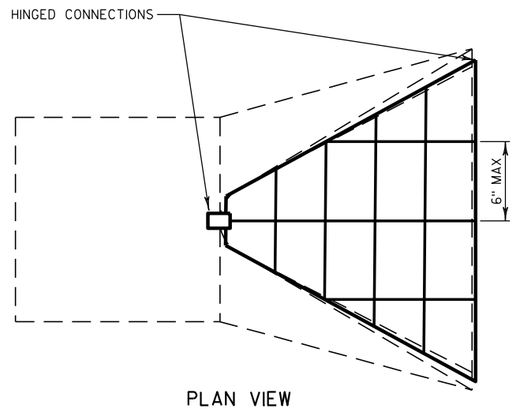
O.D. = OUTSIDE DIAMETER

* CULVERT PIPE IN NEW EMBANKMENT = 1' MIN
* CULVERT PIPE IN EXISTING EMBANKMENT = TO EXISTING GROUND ELEVATION

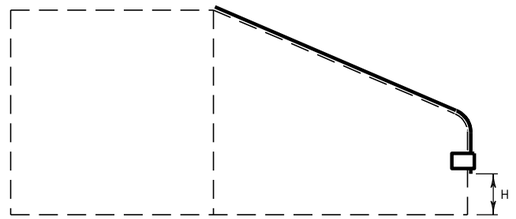
** INCIDENTAL TO CULVERT PIPE

CULVERT BACKFILL DETAIL

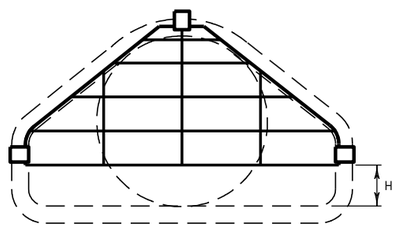
2



PLAN VIEW



SIDE VIEW



END VIEW

GRATE CLEARANCE HEIGHT

ROUND PIPE		ARCH PIPE	
PIPE SIZE	H	PIPE SIZE	H
12"	2 1/2"	22" - 29"	4"
15"	3"	36" - 44"	5"
18" - 24"	4"	51" - 65"	6"
27" - 36"	5"	73" - 85"	7"
42" - 54"	6"		
60" - 72"	7"		
78" - 90"	8"		

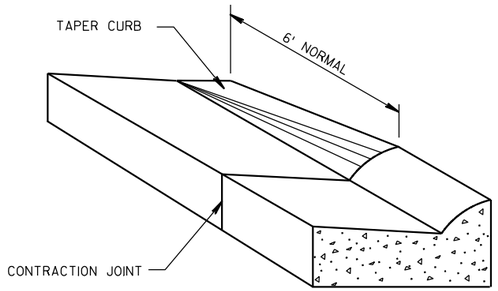
GRATE BAR SIZES

(STANDARD DESIGN)

	PIPE SIZE	HOLE DIAMETER REQUIRED	BOLT DIAMETER	BAR SIZE
ROUND PIPE	12" - 24"	3/4"	5/8"	5/8"
	27" - 48"	7/8"	3/4"	3/4"
	54" - 90"	1 1/8"	1"	1"
ARCH PIPE	22" - 29"	3/4"	5/8"	5/8"
	36" - 59"	7/8"	3/4"	3/4"
	65" - 85"	1 1/8"	1"	1"

BOLT LENGTH = PIPE WALL THICKNESS + 2 1/2"

PIPE GRATE



DETAIL OF CURB & GUTTER TERMINI

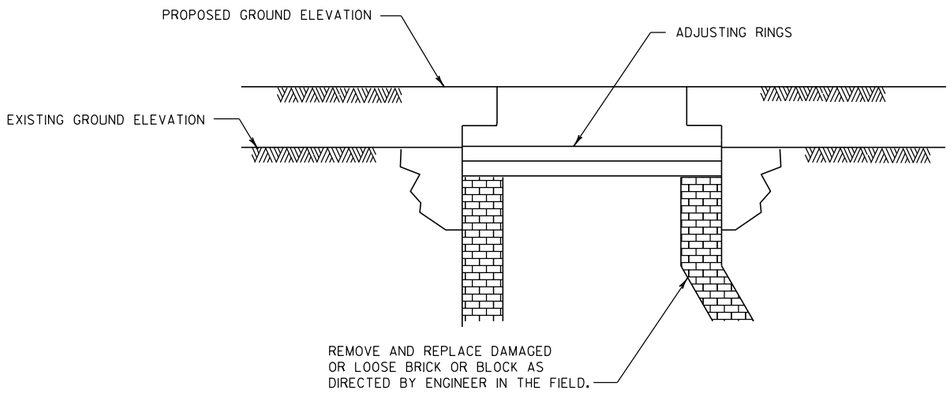
NOTE: USE 6 FT TRANSITION FOR CONCRETE AND ASPHALTIC CURB

2

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT: HMA												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

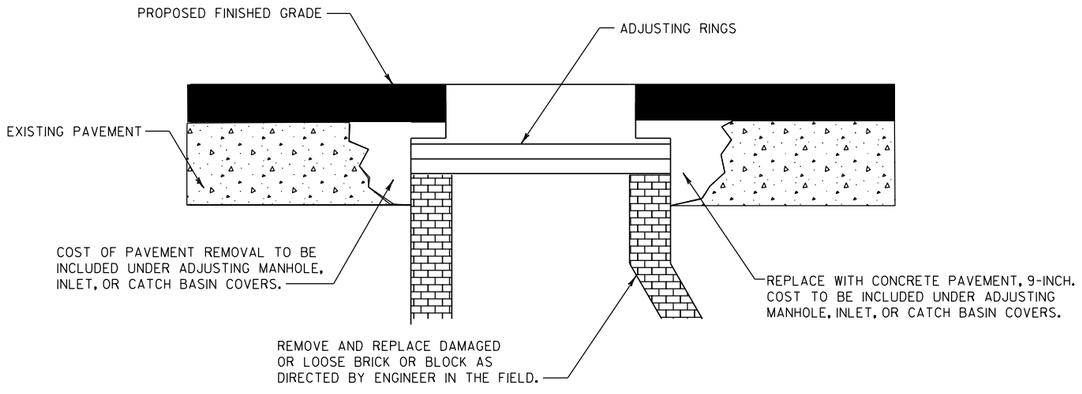
TOTAL PROJECT AREA = 190.6 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 127.7 ACRES



NON-PAVED AREA

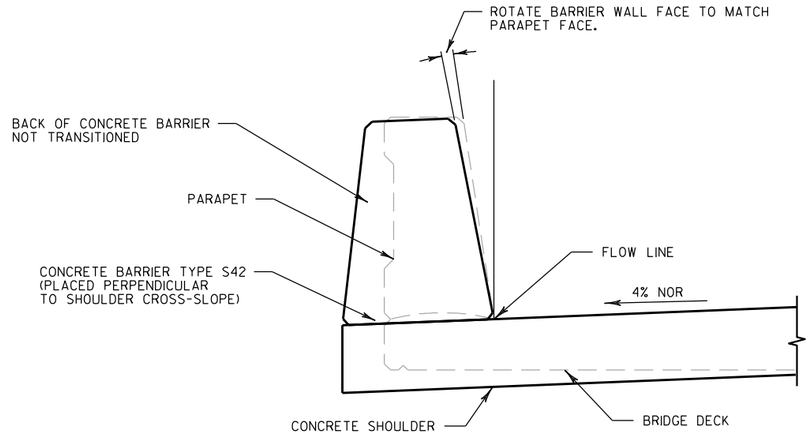
NOTE

ADJUST CHIMNEY WITH PROPER SIZE CONCRETE ADJUSTING RINGS (SIZE OF OPENING OF CONCRETE ADJUSTING RING TO BE DETERMINED BY SIZE OF OPENING IN FRAME) AND REINSTALL EXISTING FRAME AND LID TO FINISHED GRADE. (BACKFILL AND OTHER WORK TO BE DONE IN ACCORDANCE WITH ITEM ADJUSTING INLET COVER.)



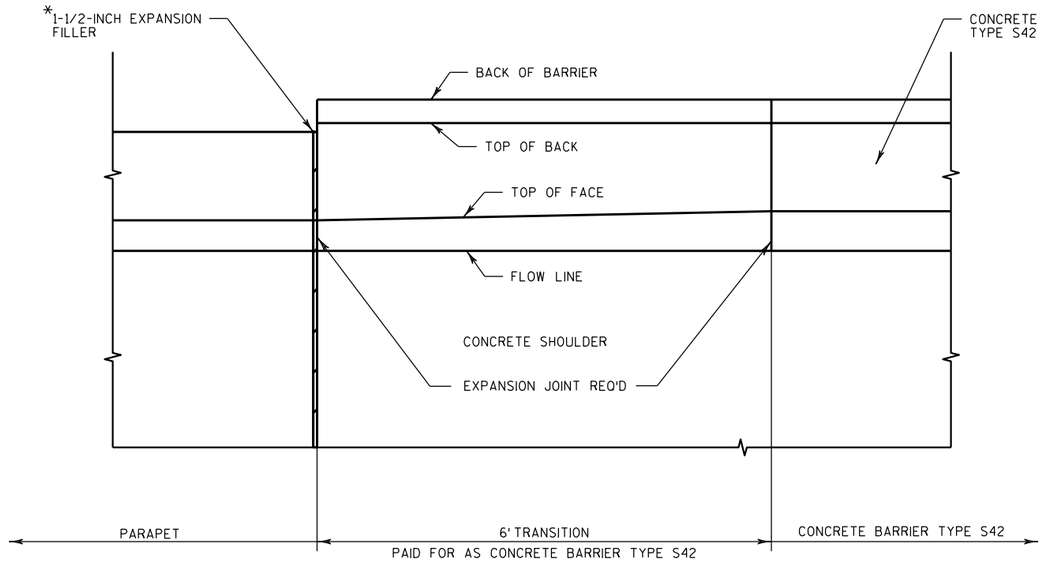
PAVED AREA

ADJUSTING MANHOLE OR INLET COVERS



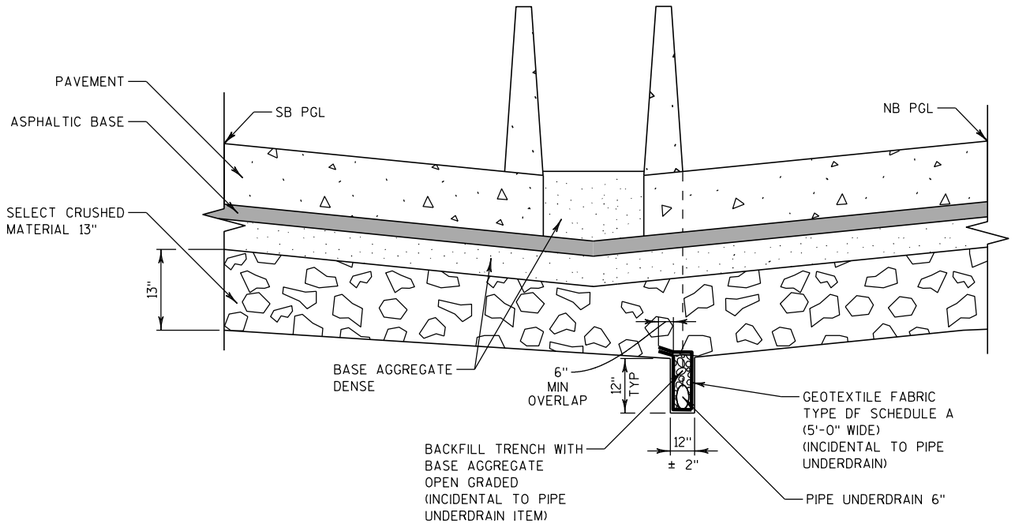
CROSS-SECTION

*= SEAL ALL EXPOSED HORIZONTAL & VERTICAL SURFACES OF FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER.

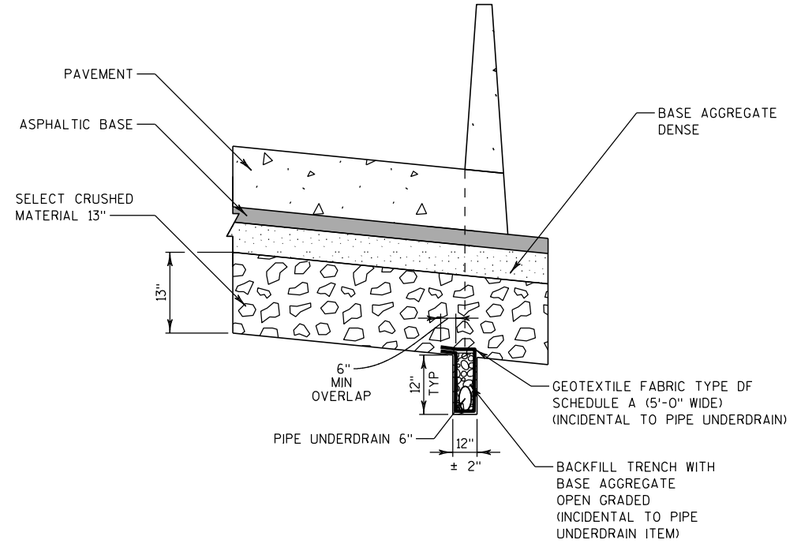


PLAN

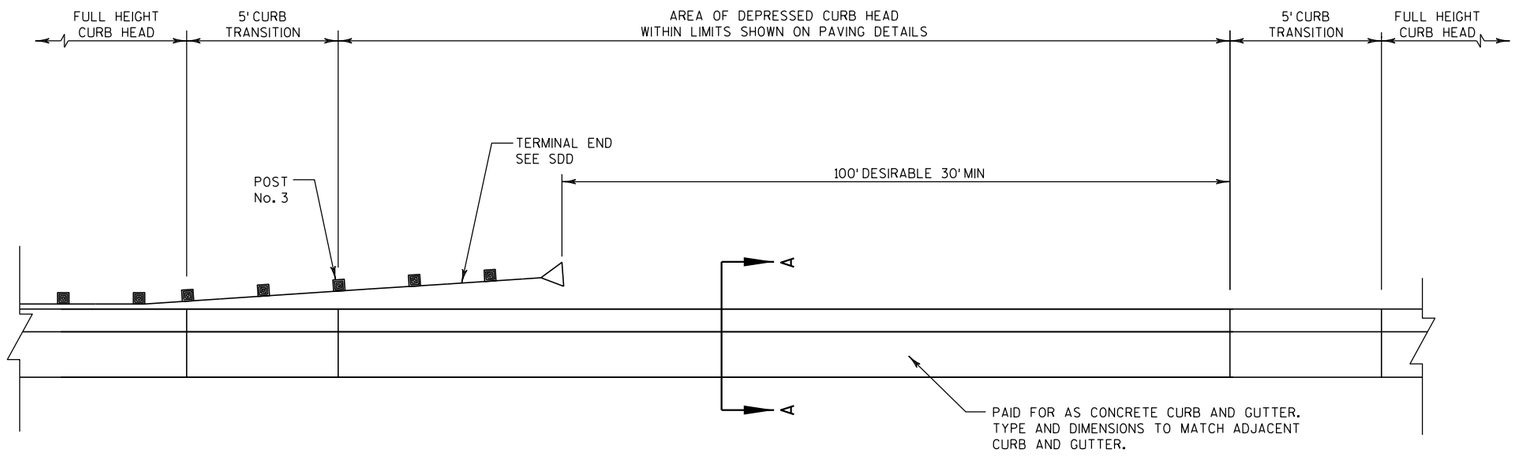
CONCRETE BARRIER TYPE S42
TRANSITION TO PARAPET 42-INCH

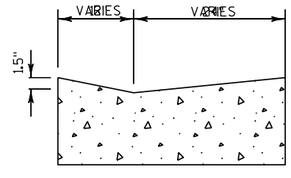


MEDIAN UNDERDRAIN TRENCH DETAIL



OUTSIDE SHOULDER UNDERDRAIN TRENCH DETAIL



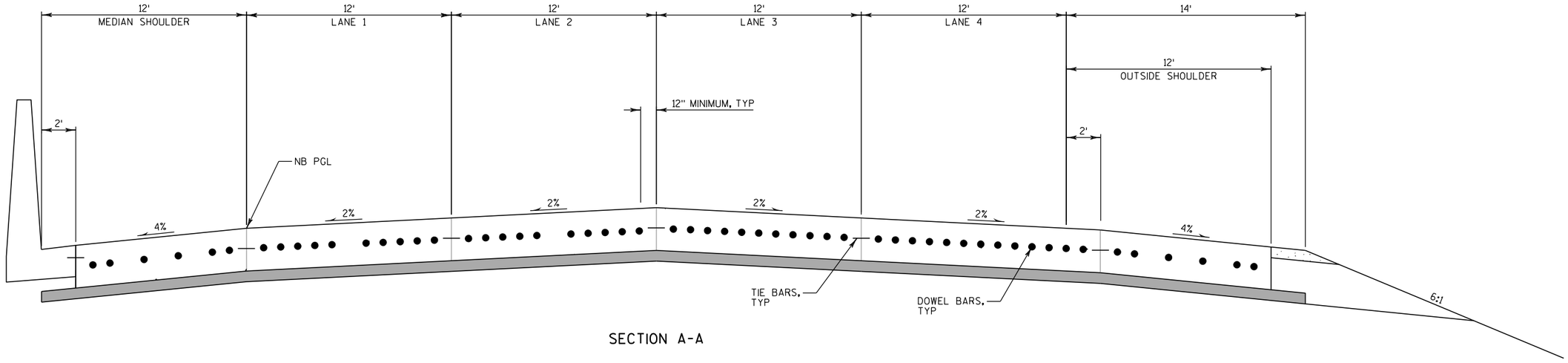


*SECTION A-A
DEPRESSED CURB

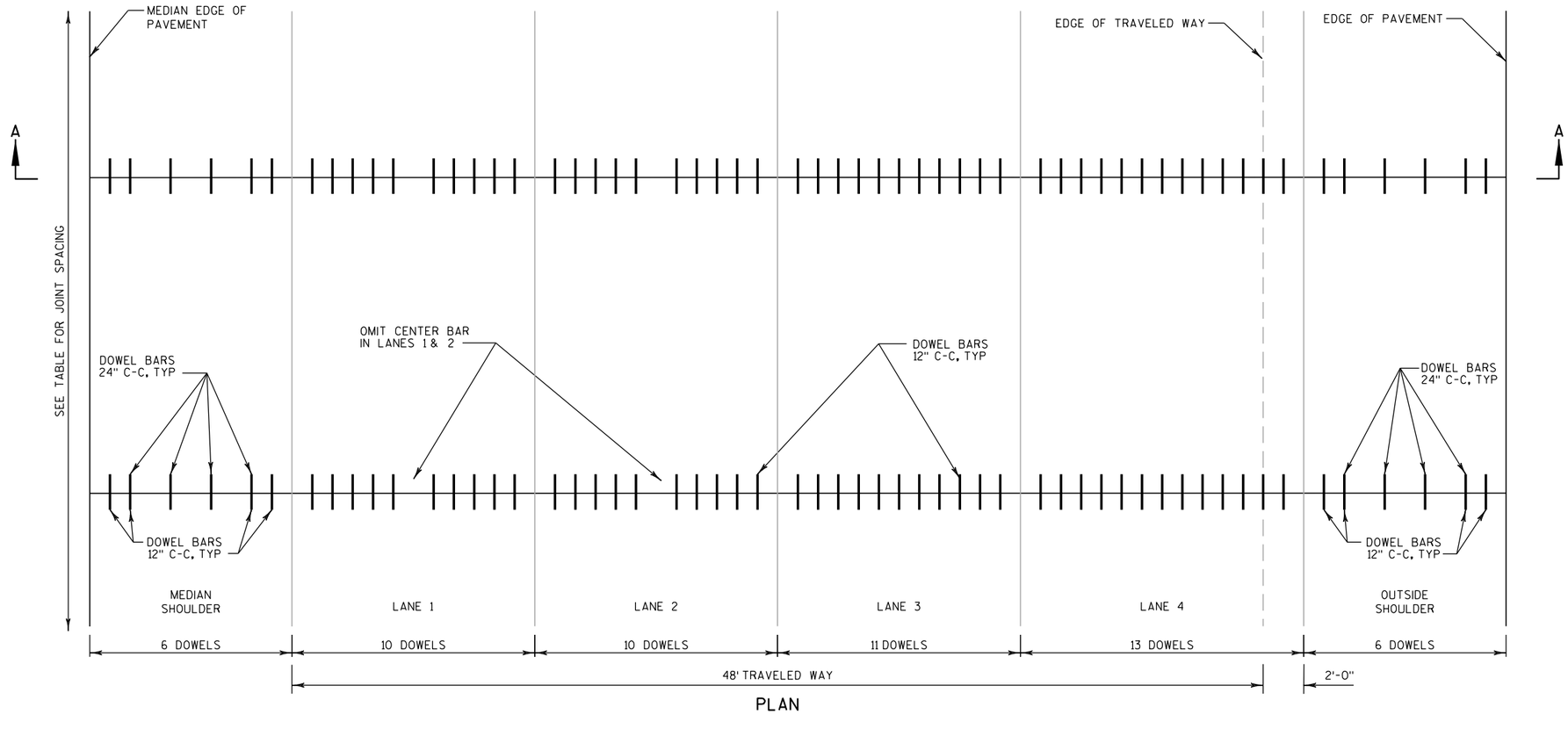
DEPRESSED CURB HEAD AT BEAM GUARD TERMINAL

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CONSTRUCTION DETAILS	SHEET	E

2



SECTION A-A



PLAN

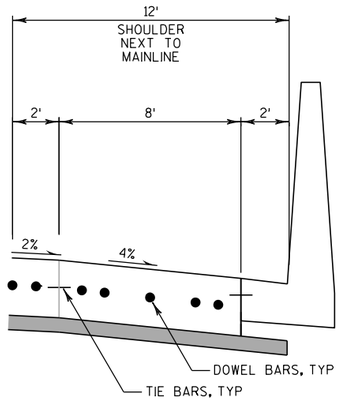
HPC PAVEMENT JOINT DETAIL

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

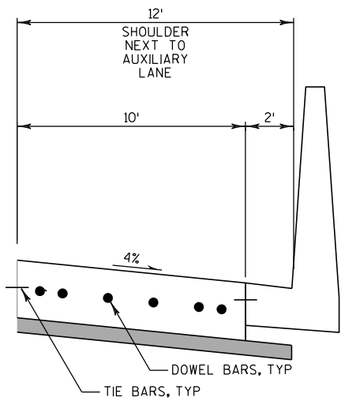
PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
10" & ABOVE	1 1/2"	15'

NOTES

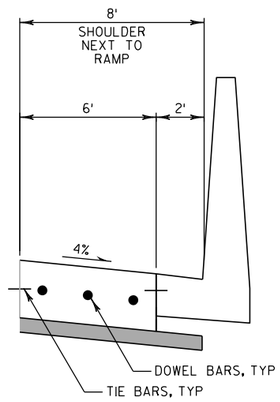
1. DETAILS NOT SHOWN SHALL CONFORM TO STANDARD DETAIL DRAWINGS.
2. LOCATE OUTERMOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS 12 INCHES FROM THE EDGE OF PAVEMENT OR LONGITUDINAL JOINT.
3. TREAT SAWED SURFACES OF TRANSVERSE AND LONGITUDINAL JOINTS WITH SILANE SEALANT.



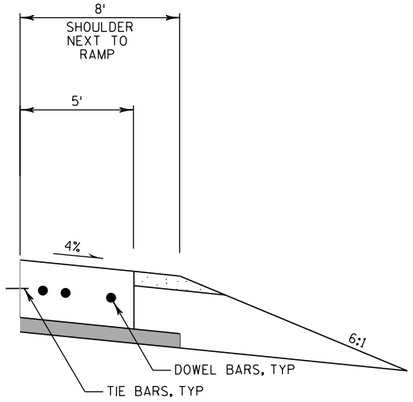
SECTION A-A



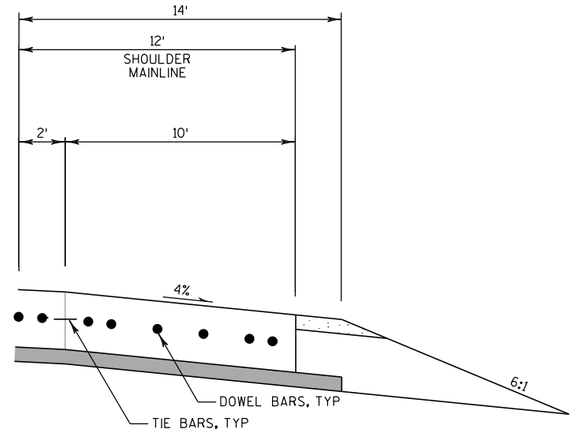
SECTION B-B



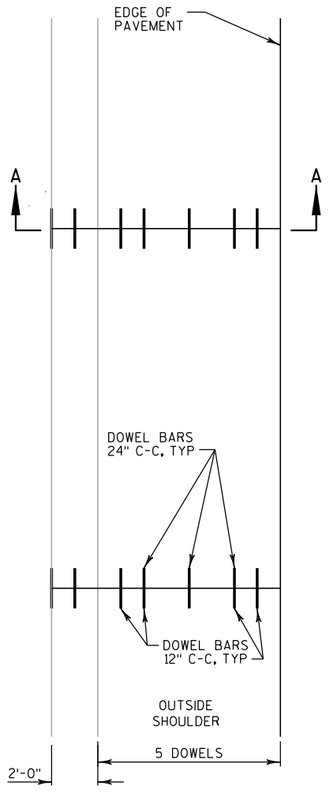
SECTION C-C



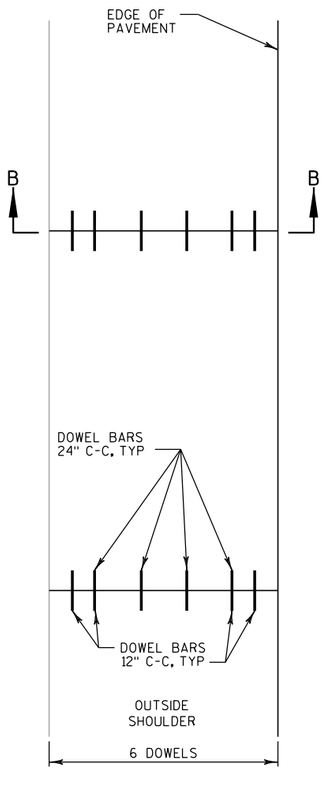
SECTION D-D



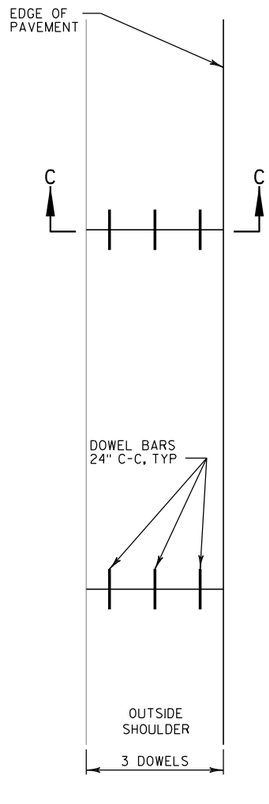
SECTION E-E



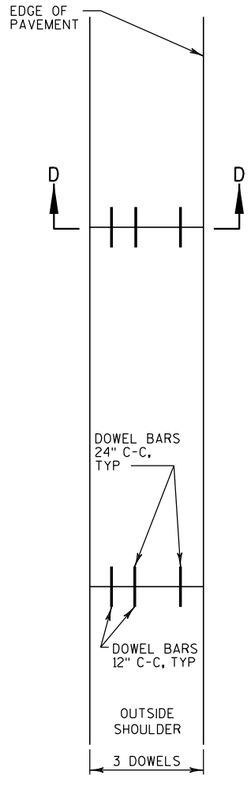
PLAN



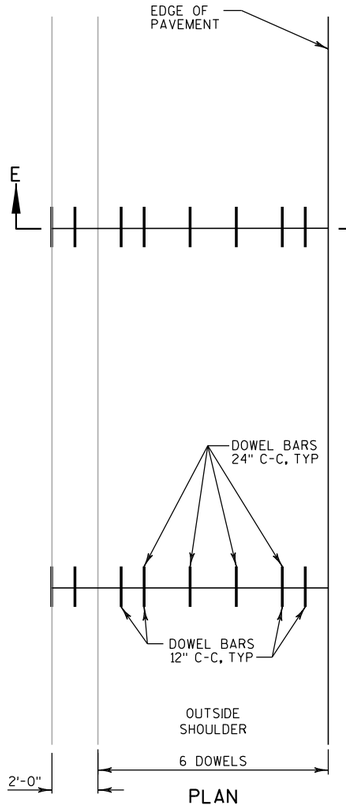
PLAN



PLAN



PLAN



PLAN

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
10" & ABOVE	1 1/2"	15'

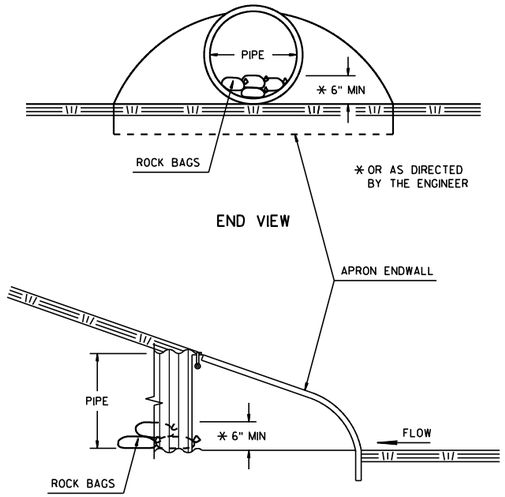
NOTES

1. DETAILS NOT SHOWN SHALL CONFORM TO STANDARD DETAIL DRAWINGS.
2. LOCATE OUTERMOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS 12 INCHES FROM THE EDGE OF PAVEMENT OR LONGITUDINAL JOINT.
3. TREAT SAWED SURFACES OF TRANSVERSE AND LONGITUDINAL JOINTS WITH SILANE SEALANT.

HPC PAVEMENT JOINT DETAIL - SHOULDERS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CONSTRUCTION DETAILS	SHEET E

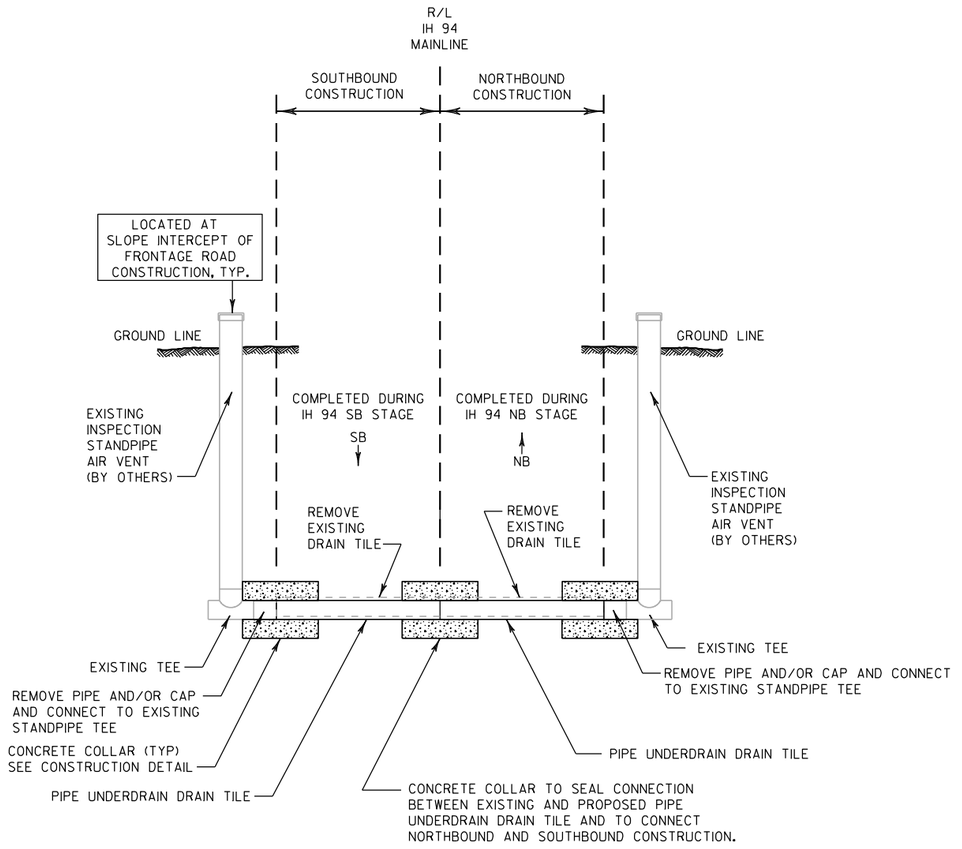
2



CULVERT PIPE ENDS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CONSTRUCTION DETAILS	SHEET	E

2



PIPE UNDERDRAIN CONFIGURATION

(FOR MAINLINE CROSSINGS)

STAGING

1. MAINLINE SOUTHBOUND CONSTRUCTION:

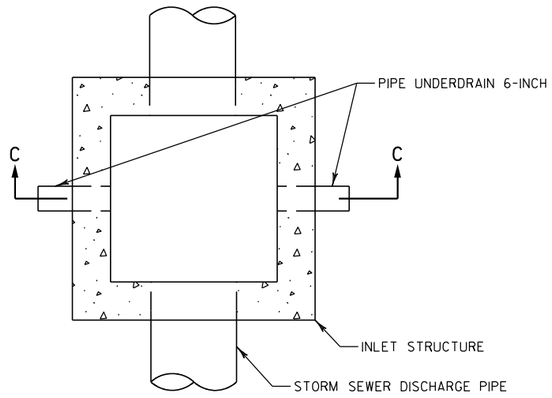
   LOCATE STANDPIPE AND REMOVE EXISTING DRAIN TILE FROM STANDPIPE TO R/L OF IH 94. INSTALL NEW PIPE UNDERDRAIN DRAIN TILE AND CONSTRUCT CONCRETE COLLARS AS SHOWN AT EXISTING TILE/NEW TILE CONNECTIONS.

2. MAINLINE NORTHBOUND CONSTRUCTION:

   REMOVE REMAINING EXISTING TILE. REMOVE CONCRETE COLLAR PLACED IN PREVIOUS STAGE. INSTALL PIPE UNDERDRAIN DRAIN TILE FROM TEE CONNECTION OF STANDPIPE TO PIPE UNDERDRAIN DRAIN TILE PLACED IN PREVIOUS MAINLINE STAGE. CONSTRUCT CONCRETE COLLARS AS SHOWN AT EXISTING TILE/NEW TILE CONNECTIONS.

NOTE

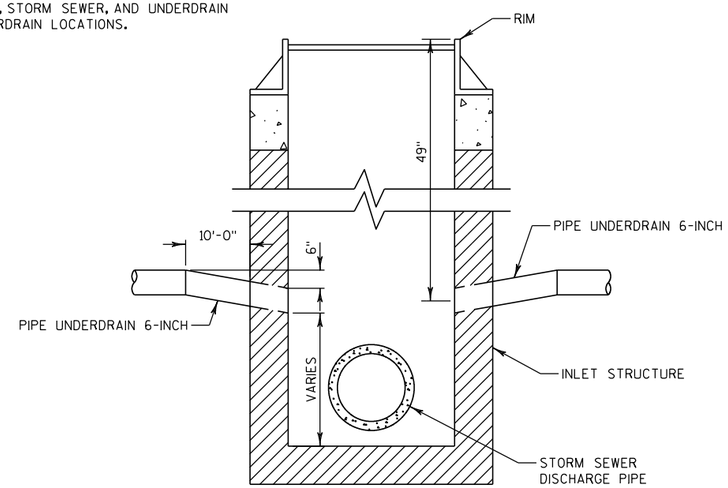
PIPE UNDERDRAIN DRAIN TILE TO BE TYPE II EXTRA-QUALITY CONCRETE DRAIN TILE CONFORMING TO 612.2.3 OF THE STANDARD SPECIFICATIONS.



PLAN VIEW

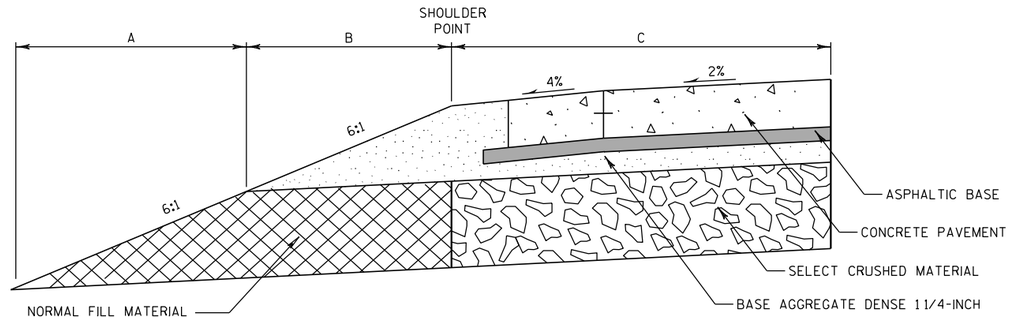
NOTES

1. CONNECTIONS TO INLETS OR MANHOLES IN MEDIAN SHALL USE PIPE UNDERDRAIN, 6-INCH.
2. PROVIDE TWO 6" DIA. OPENINGS FOR UNDERDRAIN PIPE A MINIMUM OF 49" BELOW THE RIM ELEVATION.
3. SEE TYPICAL SECTIONS, STORM SEWER, AND UNDERDRAIN PLANS FOR PIPE UNDERDRAIN LOCATIONS.

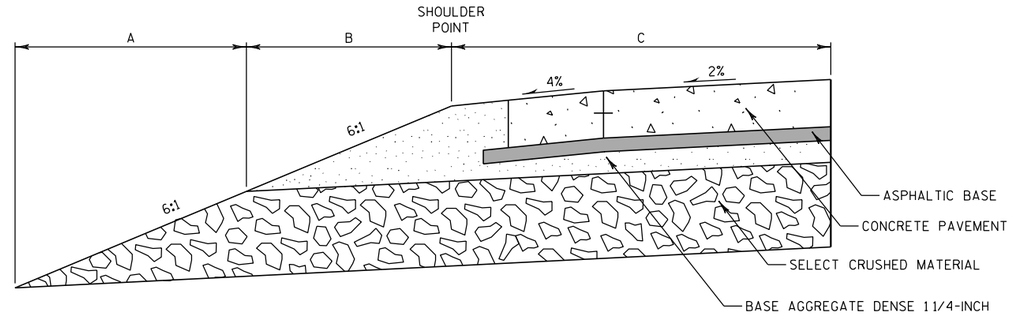


SECTION C-C

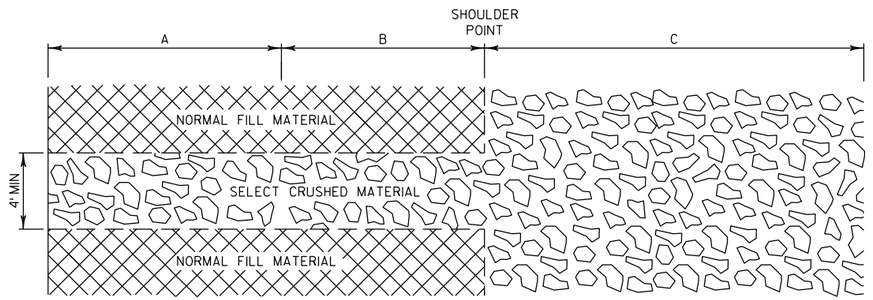
UNDERDRAIN OUTFALL AT INLET



TYPICAL HALF SECTION WITHOUT RELIEF TRENCH



TYPICAL HALF SECTION WITH RELIEF TRENCH

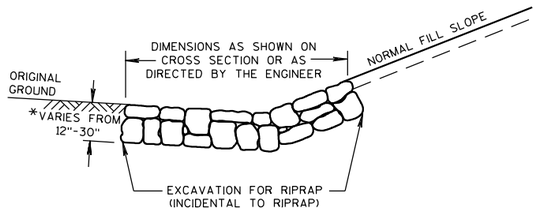


RELIEF TRENCH PLAN VIEW

RELIEF TRENCH

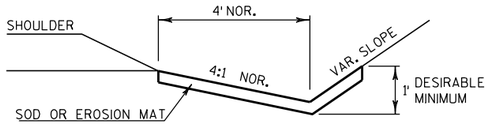
CONSTRUCT RELIEF TRENCH AT:

829+50 RT	849+50 RT & LT
832+00 RT	852+00 LT
834+50 RT	875+00 LT
837+00 RT	877+50 RT & LT
839+50 RT	880+00 RT & LT
842+00 RT	882+50 RT & LT
844+50 RT	885+00 RT
847+00 RT	887+50 RT

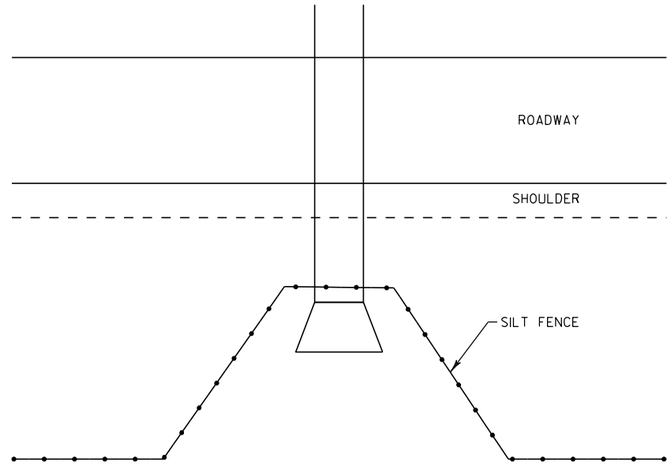


DETAIL FOR RIPRAP IN DITCHES

* PROVIDE DEPTHS AND VARIOUS RIPRAP SIZES IN ACCORDANCE WITH SECTION 606 OF THE STANDARD SPECIFICATIONS.



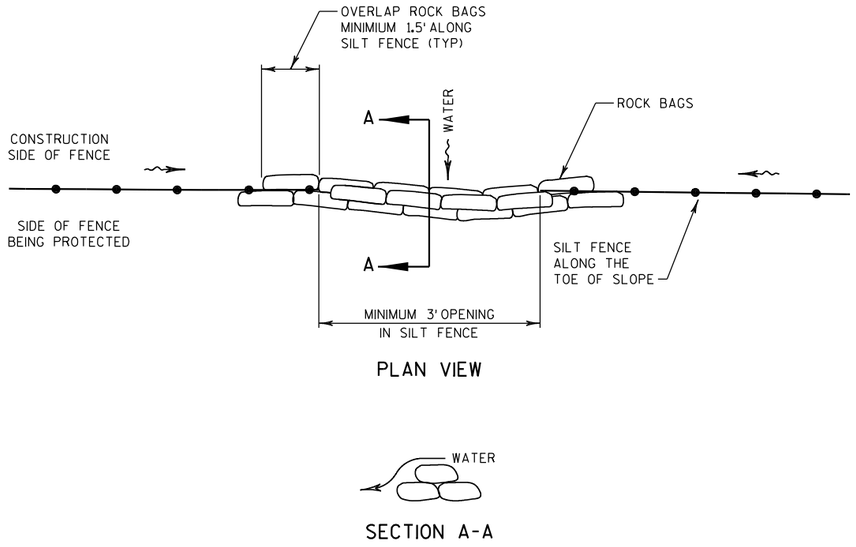
SOD OR EROSION MAT DETAIL FOR DITCHES



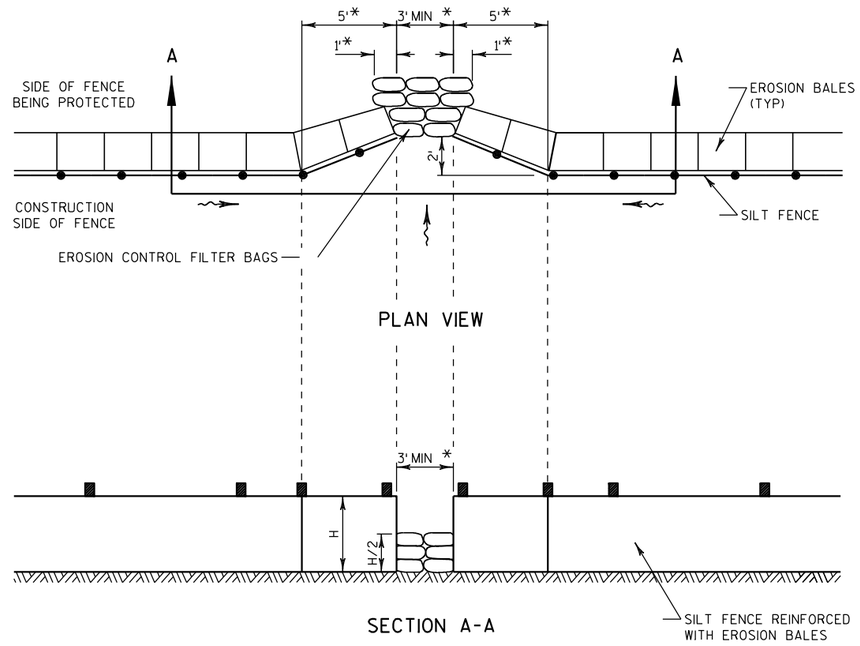
NOTE
SEE SILT FENCE SDD FOR ADDITIONAL INFORMATION.

TYPICAL SILT FENCE DETAIL AT PIPE INLET

2



SILT FENCE DRAINAGE OUTLET, ROCK BAGS

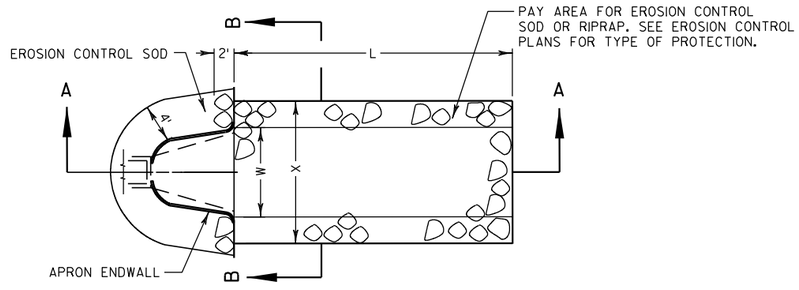


* DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

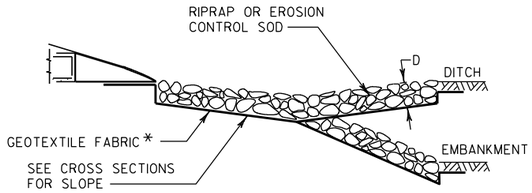
SILT FENCE DRAINAGE OUTLET, EROSION CONTROL FILTER BAGS

(FOR USE IN ENVIRONMENTALLY SENSITIVE AREAS)

2



PLAN VIEW



SECTION A-A

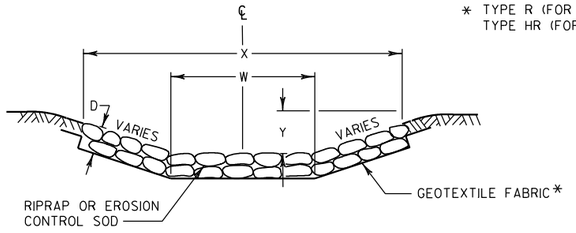
L = 3 x W (NOR) OR 10' MIN
OR AS INDICATED IN THE PLANS
OR AS DIRECTED BY THE ENGINEER

D = 12" FOR RIPRAP LIGHT
18" FOR RIPRAP MEDIUM
24" FOR RIPRAP HEAVY

X = W+2' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
W+5' FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

Y = 0' FOR TYPICAL CULVERT
DISCHARGE INTO DITCH
12" FOR CULVERT DISCHARGE
DOWN EMBANKMENT SLOPE

* TYPE R (FOR RIPRAP LIGHT ONLY)
TYPE HR (FOR RIPRAP HEAVY AND MEDIUM ONLY)

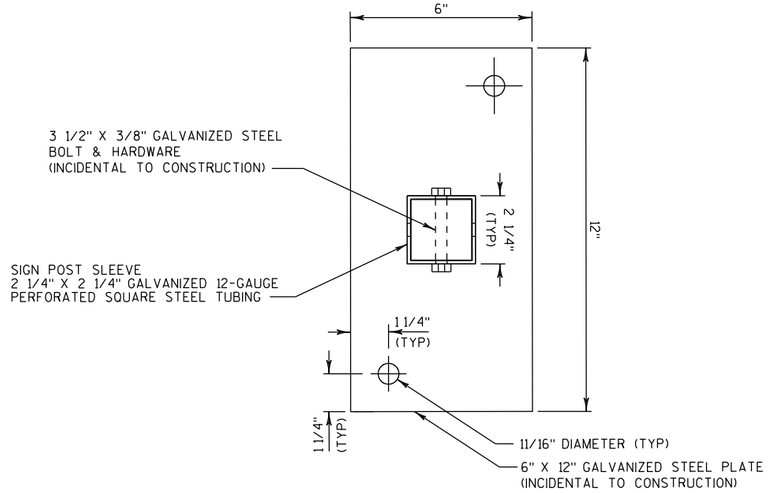


SECTION B-B

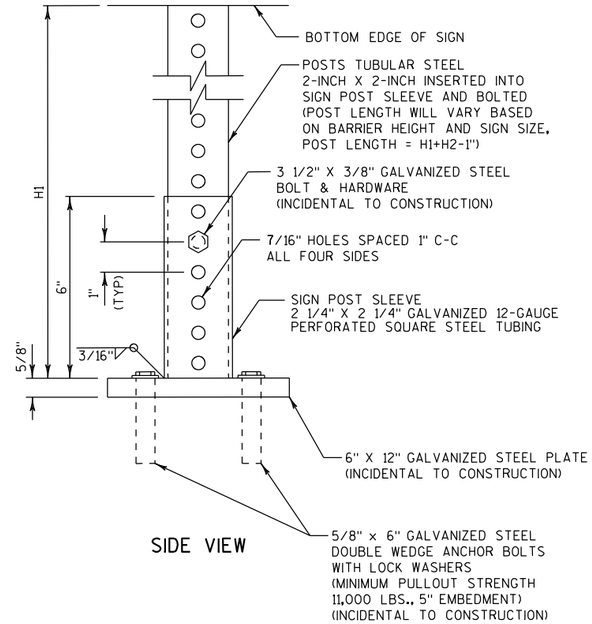
SOD, RIPRAP AND GEOTEXTILE FABRIC DETAIL AT APRON ENDWALLS

SEE EROSION CONTROL PLAN FOR LOCATIONS

2

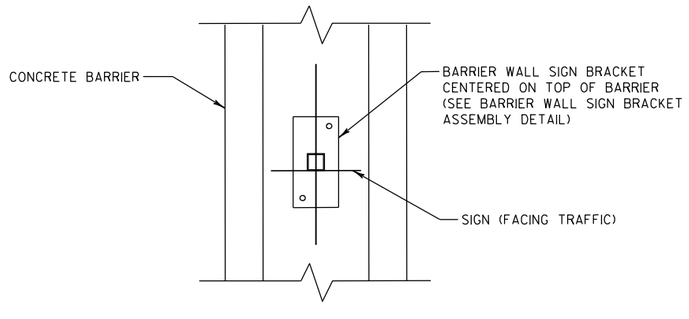


PLAN VIEW

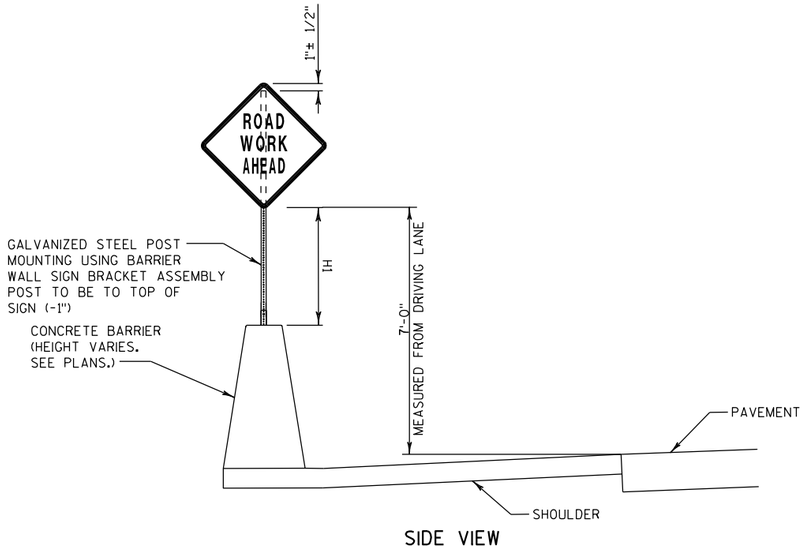


SIDE VIEW

BARRIER WALL SIGN BRACKET ASSEMBLY DETAIL



PLAN VIEW



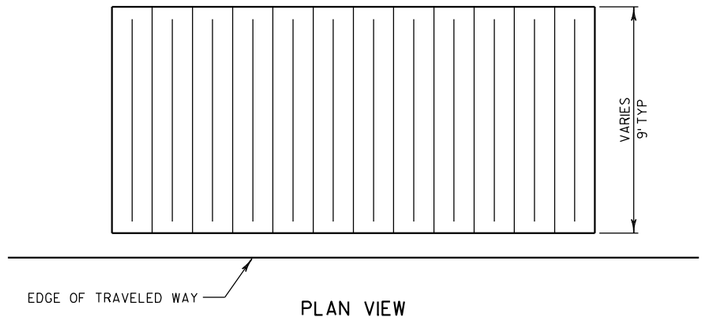
SIDE VIEW

MEDIAN BARRIER MOUNTING DETAIL

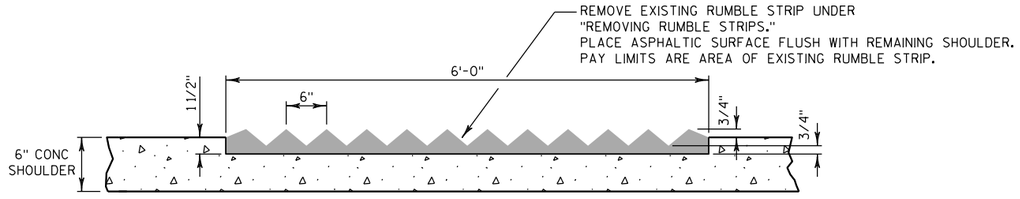
MOUNTING SIGNS TO MEDIAN BARRIER

NOT TO SCALE

2



PLAN VIEW



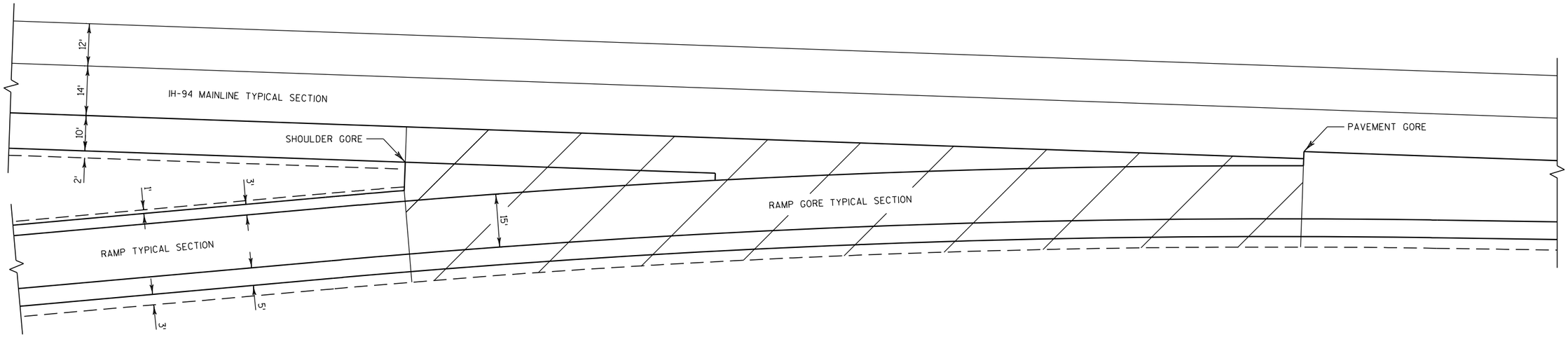
PROFILE VIEW

NOTE

1. RUMBLE STRIPS ARE LONGITUDINALLY SPACED 60' CENTER TO CENTER
2. IF THE RUMBLE STRIP ENDS AT OR NEAR A CONCRETE JOINT, MILL OUT AN ADDITIONAL 1' OF CONCRETE PAST THE JOINT BEFORE FILLING WITH ASPHALT.

REMOVING RUMBLE STRIPS

2



RAMP TYPICAL SECTION

- CONCRETE PAVEMENT
- BASE AGGREGATE DENSE 1 1/4-INCH (6-INCH)
- SELECT CRUSHED MATERIAL (16-INCH)

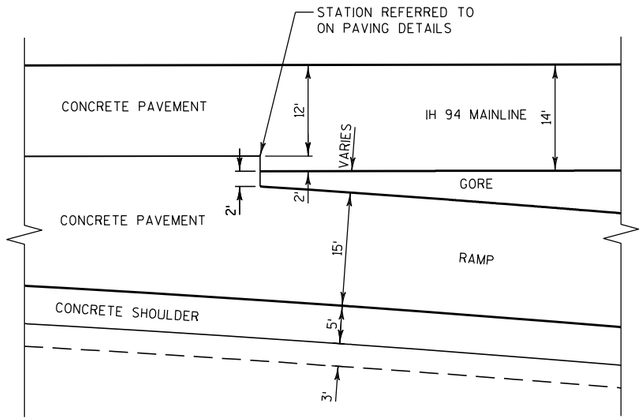
RAMP GORE TYPICAL SECTION

- MAINLINE CONCRETE PAVEMENT
- BASE AGGREGATE DENSE 1 1/4-INCH (9-INCH)
- SELECT CRUSHED MATERIAL (13-INCH)

IH-94 MAINLINE TYPICAL SECTION

- CONCRETE PAVEMENT
- ASPHALTIC BASE (3-INCH)
- BASE AGGREGATE DENSE 1 1/4-INCH (6-INCH)
- SELECT CRUSHED MATERIAL (13-INCH)

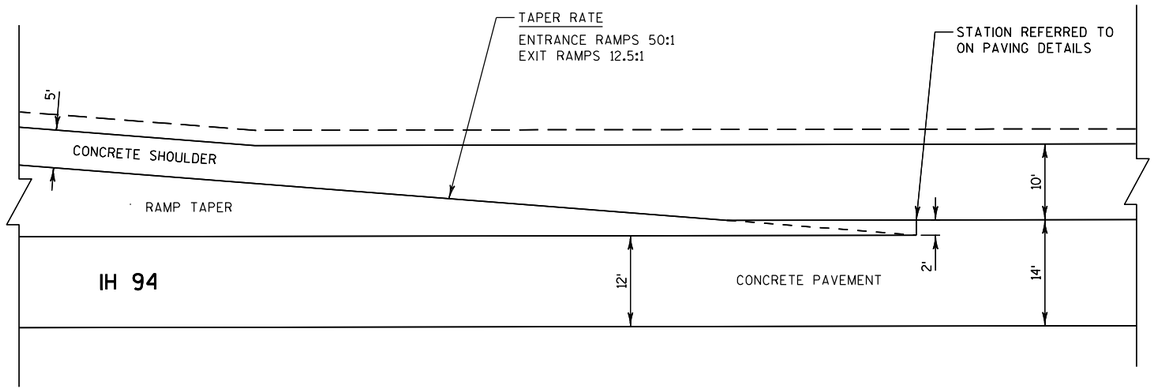
RAMP GORE DETAIL



TAPER END LAYOUT FOR CONCRETE PAVEMENT

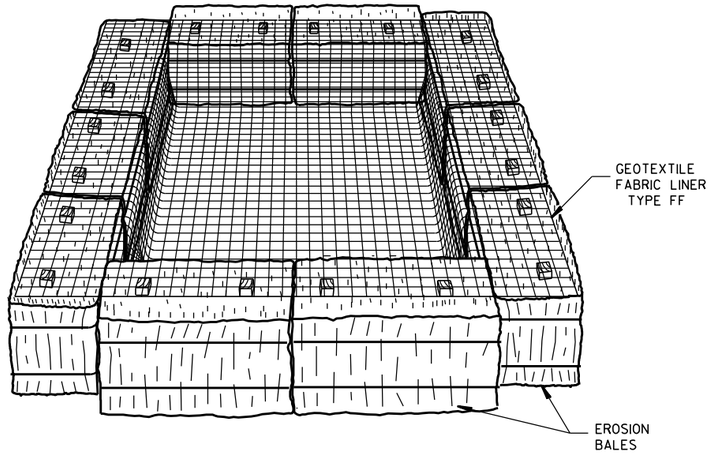
FOR ENTRANCE AND EXIT RAMP PAVEMENT NOTCH AT GORE

2



TAPER END LAYOUT FOR CONCRETE PAVEMENT

FOR ENTRANCE AND EXIT RAMP PAVEMENT NOTCH AT TAPER POINT



TEMPORARY SETTLING BASIN

(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)

STORAGE VOLUME (C.F.) = 16 X GPM (PUMP RATE)

EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT.

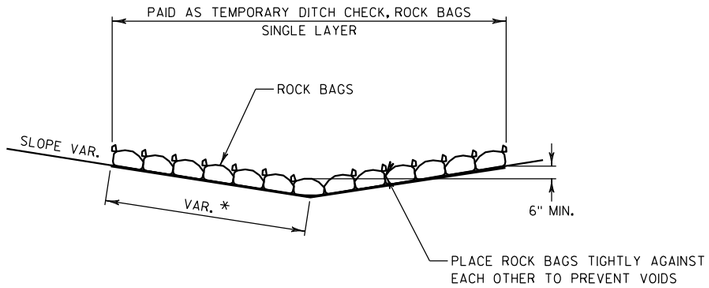
SOLUTION:
SV (C.F.) = 16 X 50
SV = 800 C.F.

$\frac{800\ C.F.}{1.5\ FT.}$ = 533 S.F.

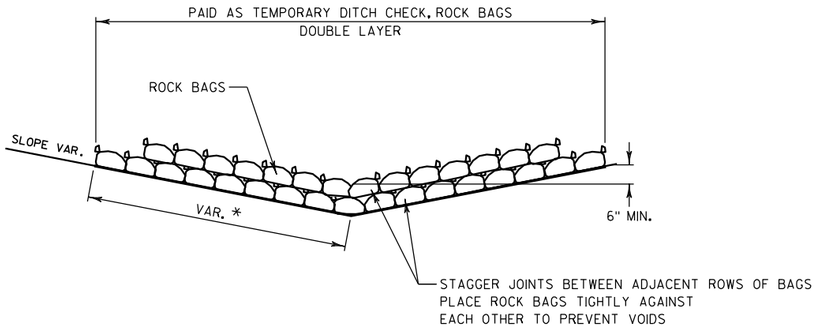
USE A 20 FT. X 27 FT. BASIN

NOTES:

1. CONTRACTOR TO PUMP WATER FROM EXCAVATION TO BASIN PRIOR TO DISCHARGING TO THE WATERWAY.
2. BASIN TO BE KEPT LESS THAN 10% FULL OF SEDIMENT. GEOTEXTILE FABRIC AND SEDIMENTS TO BE DISPOSED BY THE CONTRACTOR OFF OF THE PROJECT SITE.
3. TEMPORARY SETTLING BASIN TO BE PAID FOR AS EROSION BALES AND GEOTEXTILE FABRIC TYPE FF.



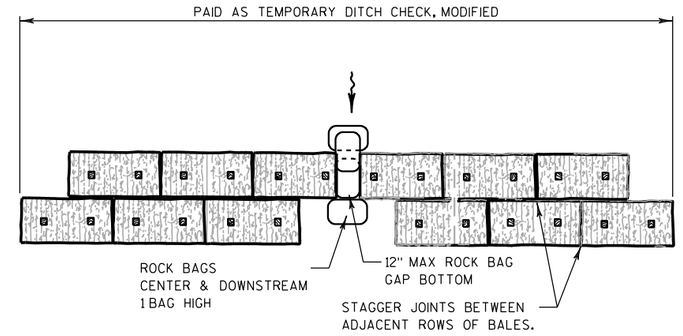
SIDE VIEW (SINGLE LAYER)



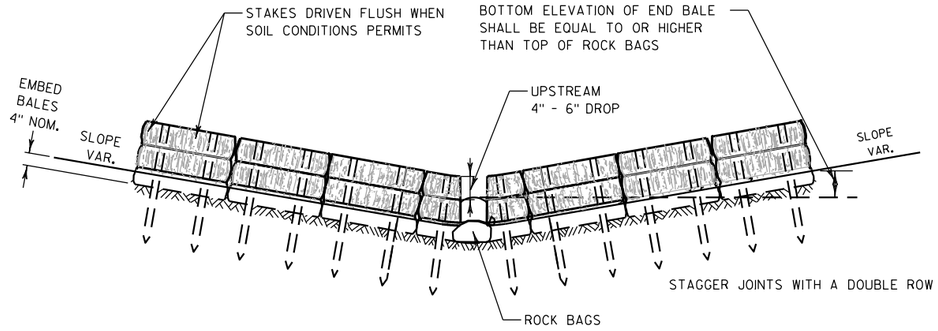
* LENGTH AND NUMBER OF BAGS MAY VARY
DEPENDING ON DESIRED DEPTH OF WATER POOL.

SIDE VIEW (DOUBLE LAYER)

TEMPORARY DITCH CHECK, ROCK BAGS, SINGLE LAYER AND DOUBLE LAYER



PLAN VIEW



FRONT ELEVATION

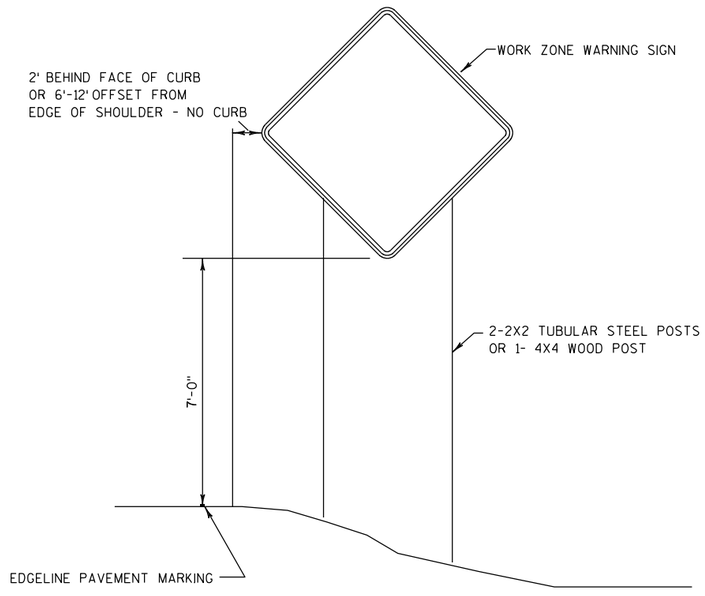
NOTE

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TEMPORARY DITCH CHECK, MODIFIED

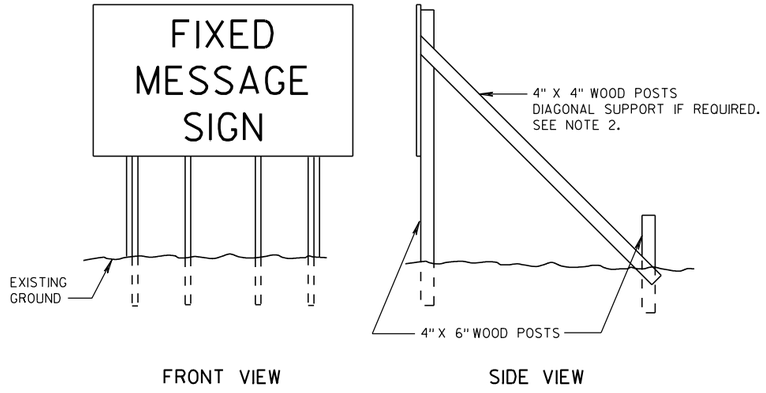
TEMPORARY DITCH CHECKS

2



TYPICAL TEMPORARY TRAFFIC CONTROL DETAIL
MOUNTING ON FIXED SUPPORT

LONG TERM
7 DAYS OR MORE



FRONT VIEW

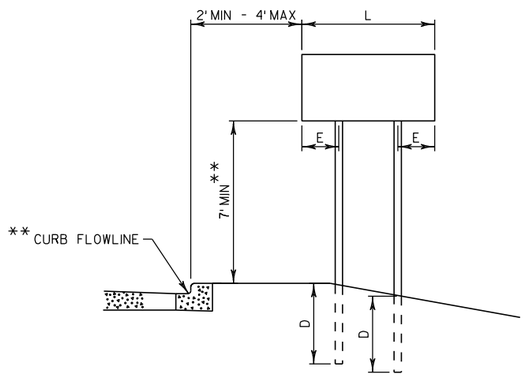
SIDE VIEW

NOTES

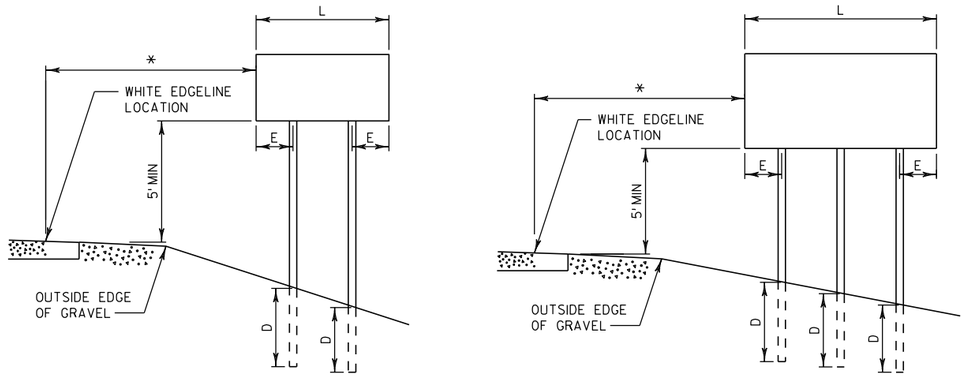
1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.
2. TWO DIAGONAL SUPPORTS TO BE INCLUDED FOR EACH SIGN OVER 12' LONG AND HIGHER THAN 8'. DIAGONAL SUPPORTS TO BE AFFIXED TO THE OUTSIDE SUPPORTS AND TO BE INCIDENTAL TO THE "TRAFFIC CONTROL FIXED MESSAGE SIGN" ITEM. IF DIAGONAL SUPPORTS ARE USED, SIGN TO BE SHIELDED BEHIND CONCRETE BARRIER OR PLACED OUTSIDE THE CLEAR ZONE.
3. SEE TABLES BELOW FOR REQUIRED NUMBER OF POSTS.

* 6' FROM EDGE OF A PAVED SHOULDER OR 12' FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) OR 2' FROM OUTSIDE EDGE OF GRAVEL, WHICHEVER IS GREATER UNLESS DIRECTED BY PROJECT ENGINEER. SEE NOTE 2 FOR OFFSET REQUIREMENTS WHERE DIAGONAL SUPPORTS ARE USED.

** THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5' MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.



URBAN AREA



RURAL AREA

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
GREATER THAN 48" LESS THAN 60"	12"
60" TO 120"	L/5

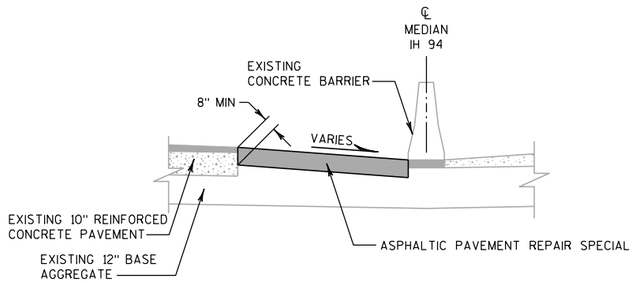
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
GREATER THAN 120" LESS THAN 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" AND GREATER	12"

POST EMBEDMENT DEPTH

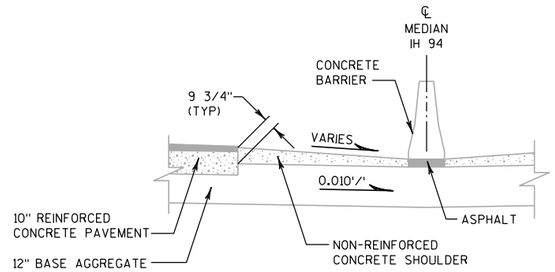
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

POST MOUNTING DETAIL FOR TRAFFIC CONTROL FIXED MESSAGE SIGNS



TYPICAL PROPOSED SECTION

(DRAINAGE STRUCTURES NOT SHOWN)

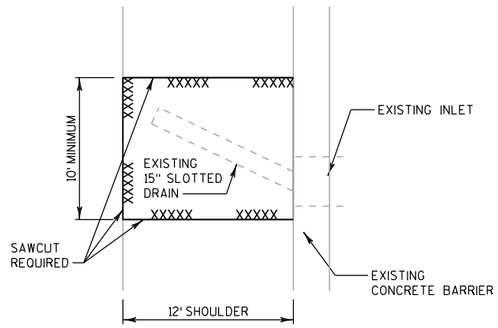


TYPICAL EXISTING SECTION

(DRAINAGE STRUCTURES NOT SHOWN)

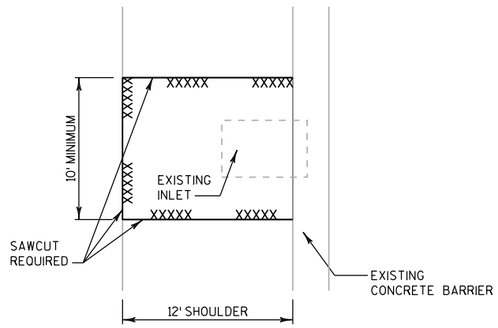
NOTES

1. SAWCUT LIMITS TO BE DETERMINED BY THE ENGINEER.
2. IF VOIDS EXIST UNDER AREAS TO BE REPAIRED, AND AT THE DIRECTION OF THE ENGINEER, BACKFILL WITH BASE AGGREGATE DENSE AND/OR BACKFILL CONTROLLED LOW STRENGTH.



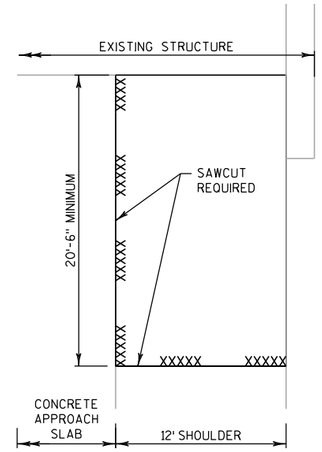
PLAN VIEW

REPAIR AT SLOTTED DRAIN



PLAN VIEW

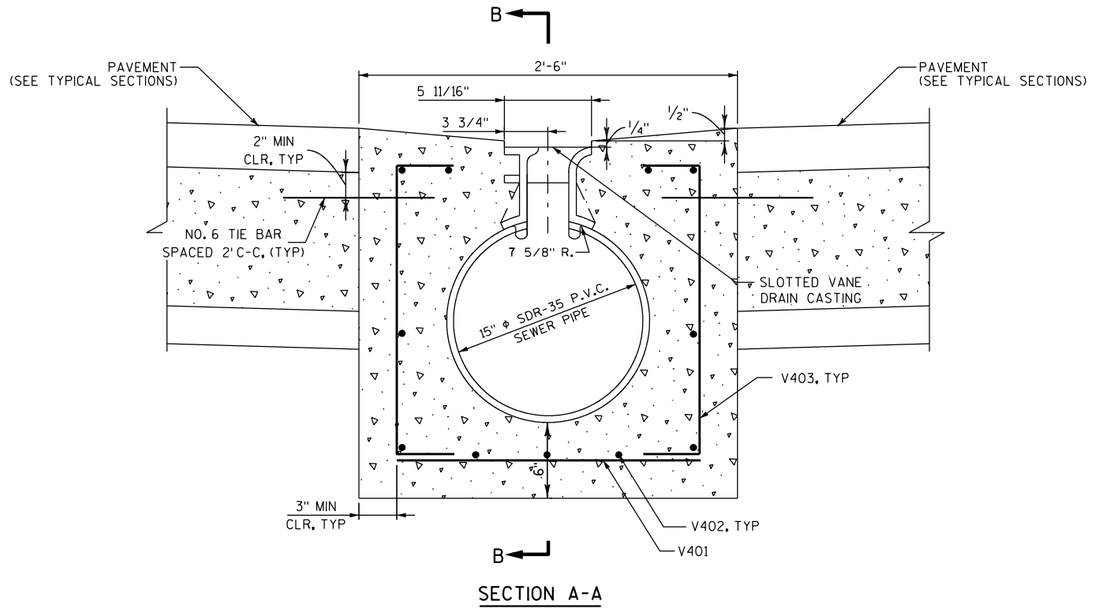
REPAIR AT INLET



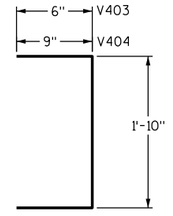
PLAN VIEW

REPAIR AT BRIDGE APPROACH SLAB

SHOULDER REPAIR



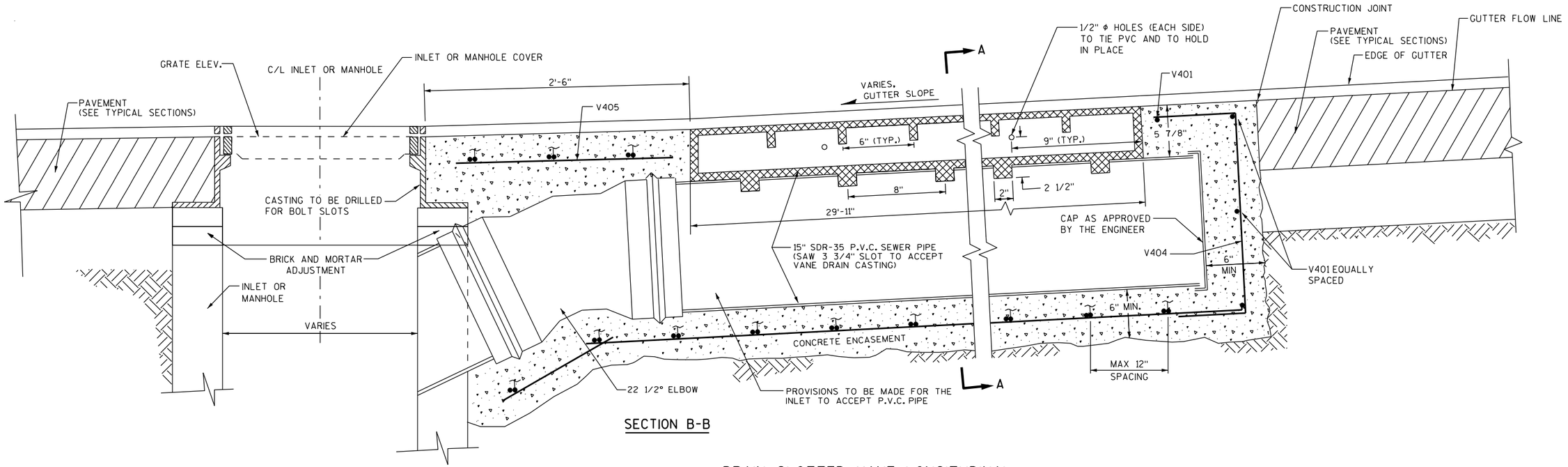
SECTION A-A



V403, V404

NOTES

1) THE FIRST DIGIT OF BAR MARK SIGNIFIES THE BAR SIZE.
2) ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3) APPROX. WEIGHT OF SLOTTED VANE DRAIN CASTING = 87 POUNDS.
4) THE CASTING AND P.V.C. PIPE SHALL BE SECURELY STAKED AND ANCHORED INTO PLACE DURING THE POURING OF THE CONCRETE ENCASEMENT.

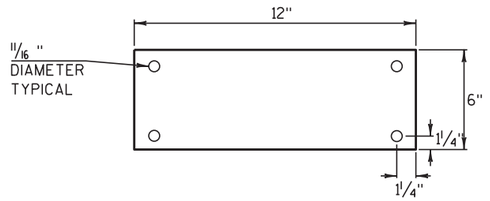


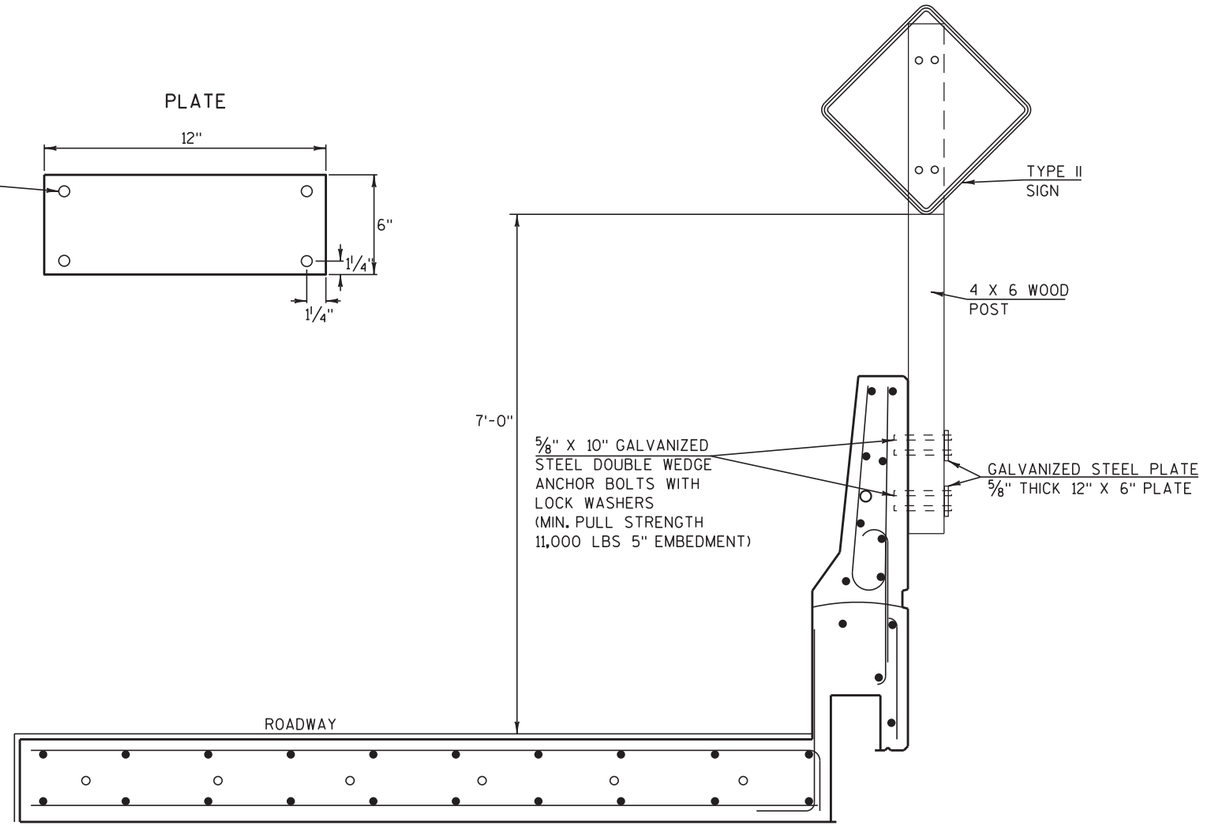
SECTION B-B

DRAIN SLOTTED VANE LONGITUDINAL

2

PLATE

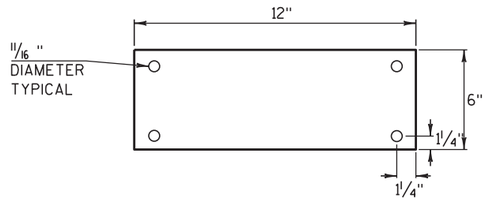


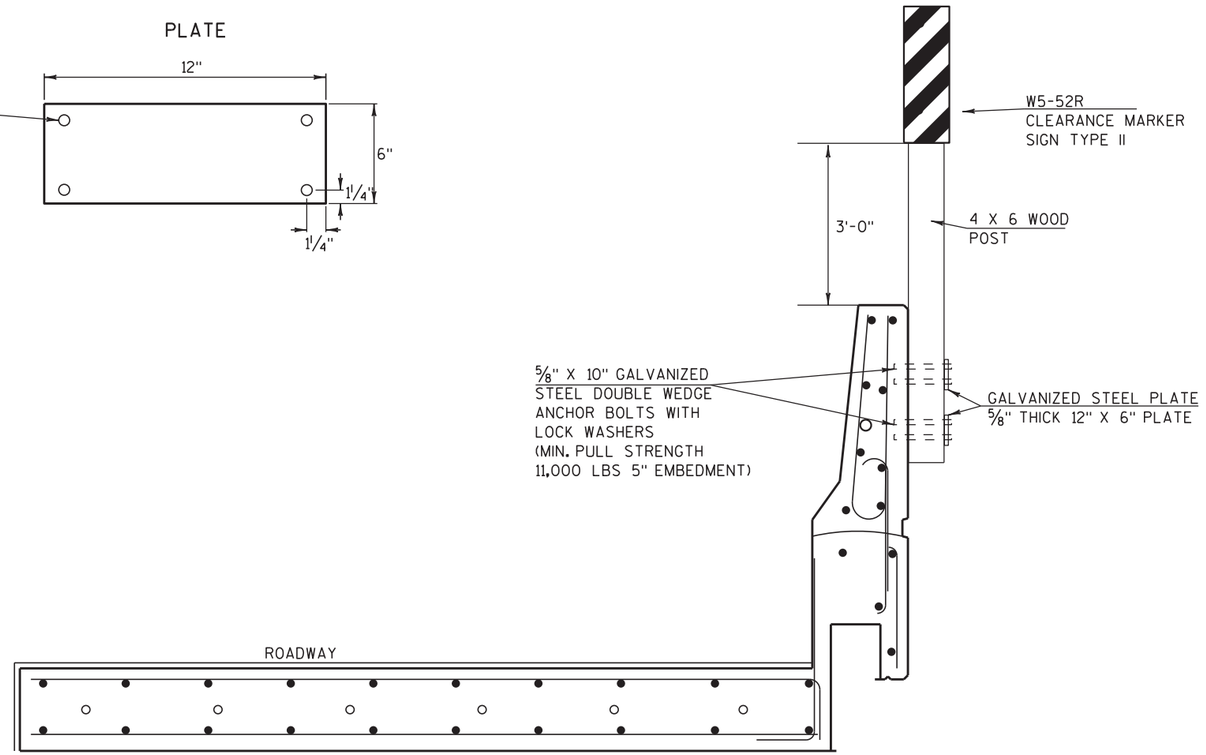


PROJECT NO: 1033-02-72	HWY: IH-94/STH 20	COUNTY: RACINE	SIGN SUPPORTS SPECIAL MOUNTING - TYPICAL	SHEET 45	E

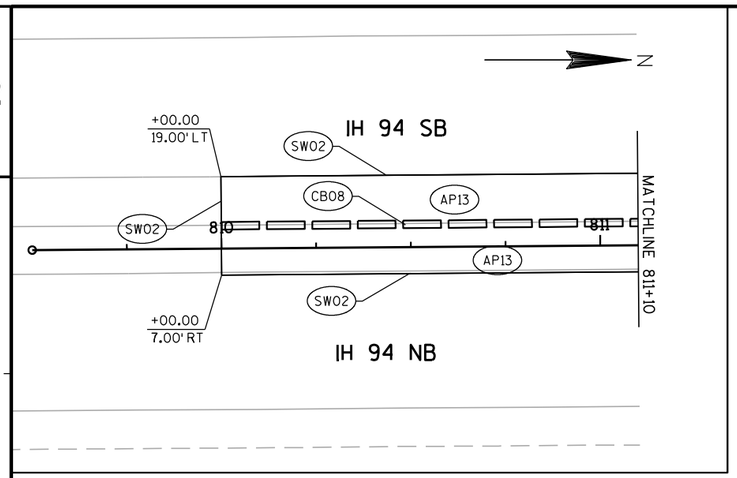
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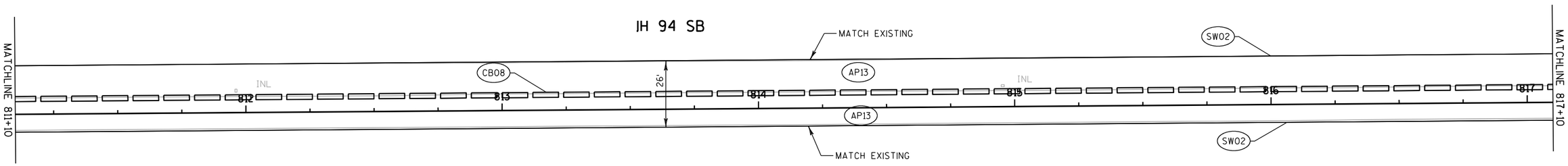
PLATE

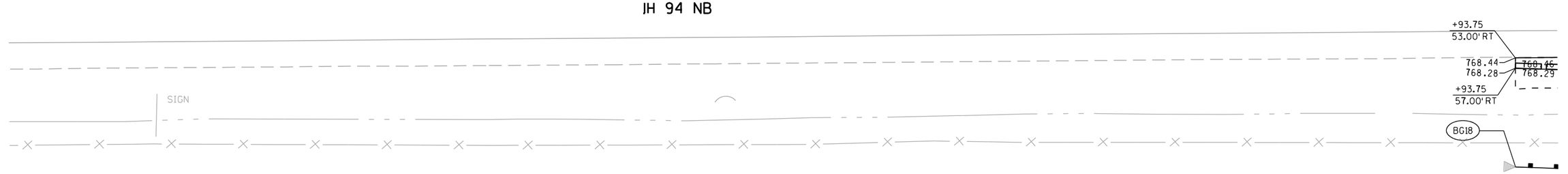




PROJECT NO: 1033-02-72	HWY: IH-94/STH 20	COUNTY: RACINE	SIGN SUPPORTS CLEARANCE MARKER SPECIAL MOUNTING - TYPICAL	SHEET 46	E



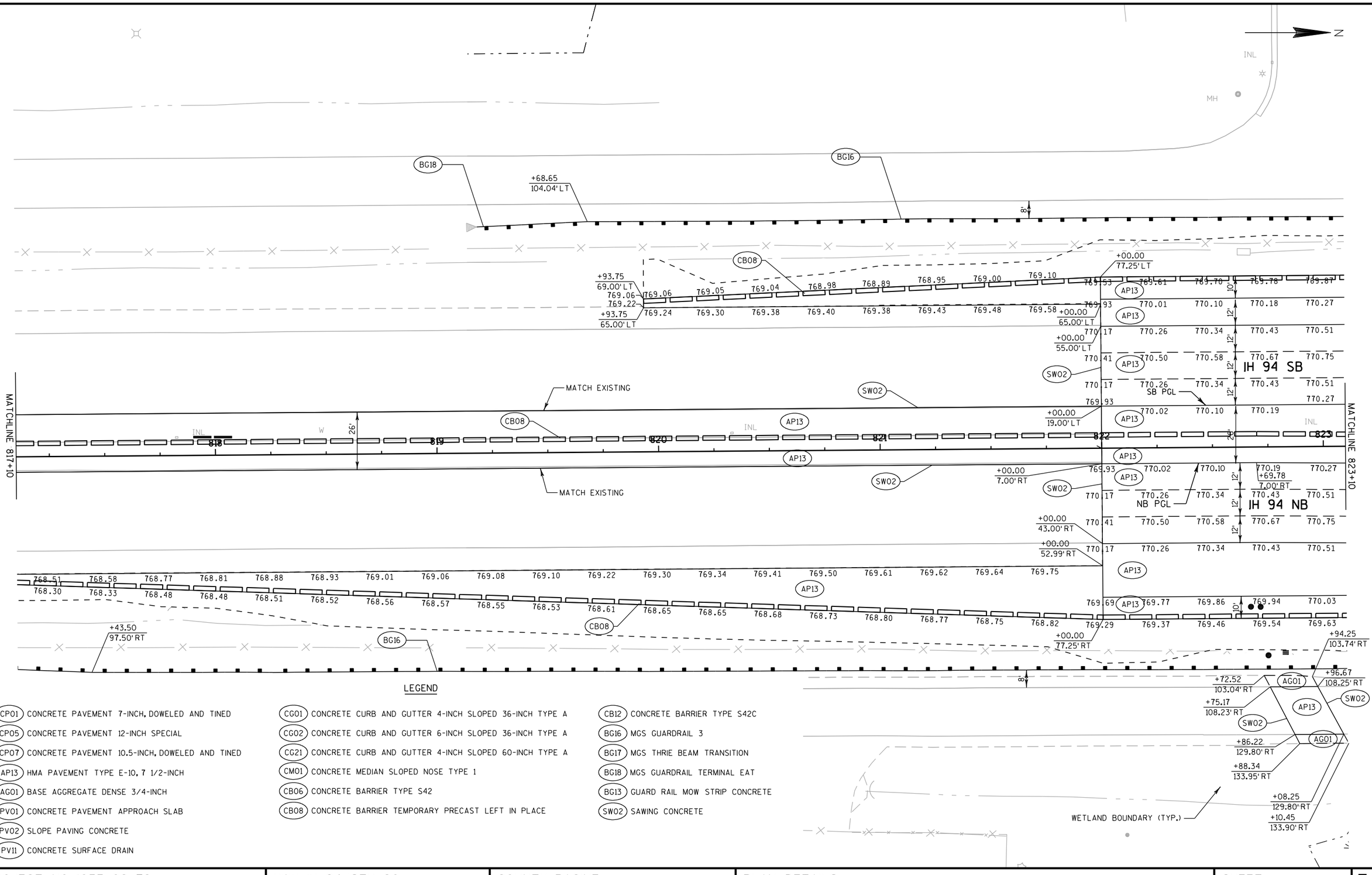




LEGEND

CP01	CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED	CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	CB12	CONCRETE BARRIER TYPE S42C
CP05	CONCRETE PAVEMENT 12-INCH SPECIAL	CG02	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A	BG16	MGS GUARDRAIL 3
CP07	CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED	CG21	CONCRETE CURB AND GUTTER 4-INCH SLOPED 60-INCH TYPE A	BG17	MGS THRIE BEAM TRANSITION
AP13	HMA PAVEMENT TYPE E-10, 7 1/2-INCH	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1	BG18	MGS GUARDRAIL TERMINAL EAT
AG01	BASE AGGREGATE DENSE 3/4-INCH	CB06	CONCRETE BARRIER TYPE S42	BG13	GUARD RAIL MOW STRIP CONCRETE
PV01	CONCRETE PAVEMENT APPROACH SLAB	CB08	CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE	SW02	SAWING CONCRETE
PV02	SLOPE PAVING CONCRETE				
PV11	CONCRETE SURFACE DRAIN				

2

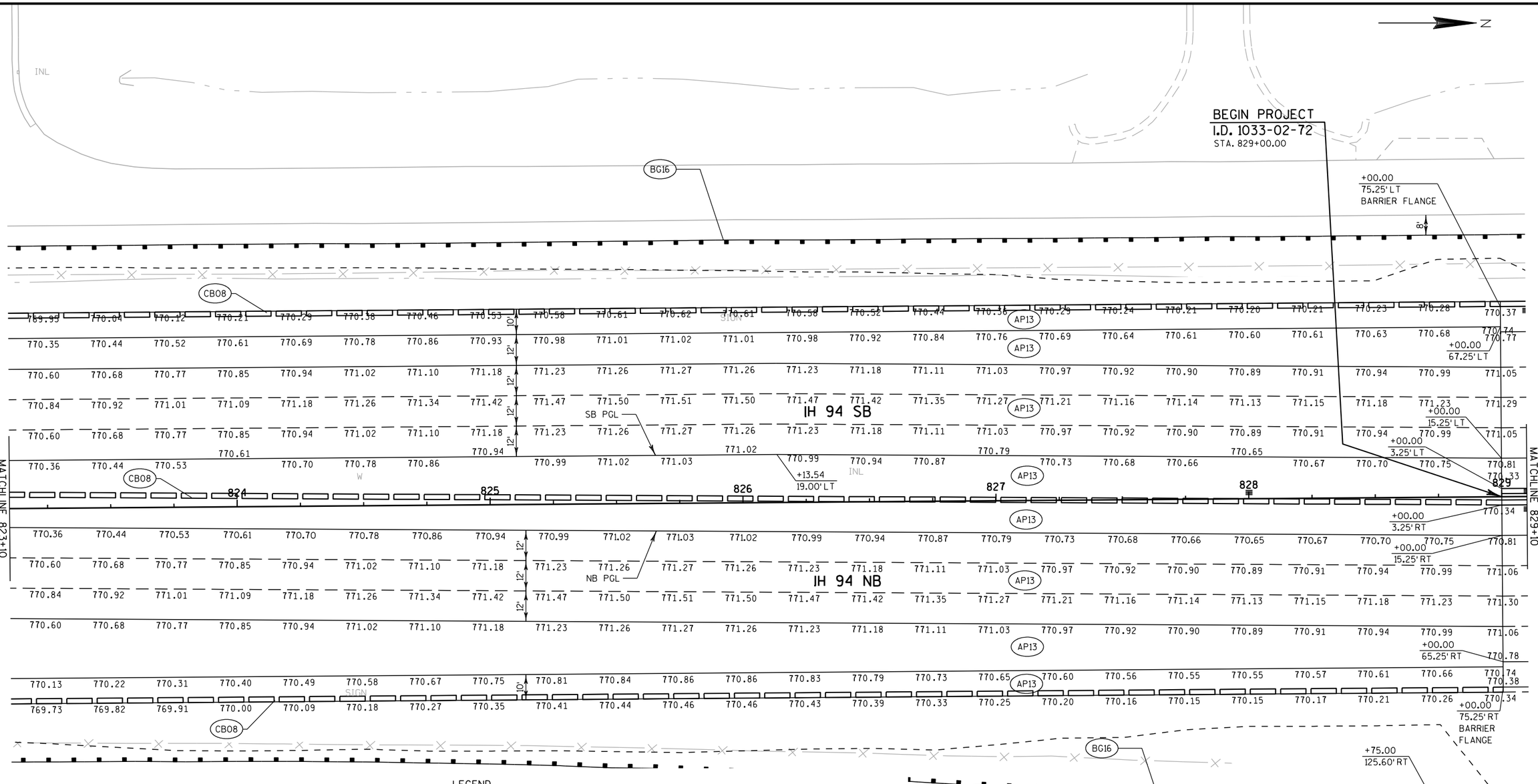


LEGEND

- CP01 CONCRETE PAVEMENT 7-INCH, DOWELED AND TIED
- CP05 CONCRETE PAVEMENT 12-INCH SPECIAL
- CP07 CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TIED
- AP13 HMA PAVEMENT TYPE E-10, 7 1/2-INCH
- AG01 BASE AGGREGATE DENSE 3/4-INCH
- PV01 CONCRETE PAVEMENT APPROACH SLAB
- PV02 SLOPE PAVING CONCRETE
- PV11 CONCRETE SURFACE DRAIN
- CG01 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
- CG02 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
- CG21 CONCRETE CURB AND GUTTER 4-INCH SLOPED 60-INCH TYPE A
- CM01 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- CB06 CONCRETE BARRIER TYPE S42
- CB08 CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
- CB12 CONCRETE BARRIER TYPE S42C
- BG16 MGS GUARDRAIL 3
- BG17 MGS THRIE BEAM TRANSITION
- BG18 MGS GUARDRAIL TERMINAL EAT
- BG13 GUARD RAIL MOW STRIP CONCRETE
- SW02 SAWING CONCRETE

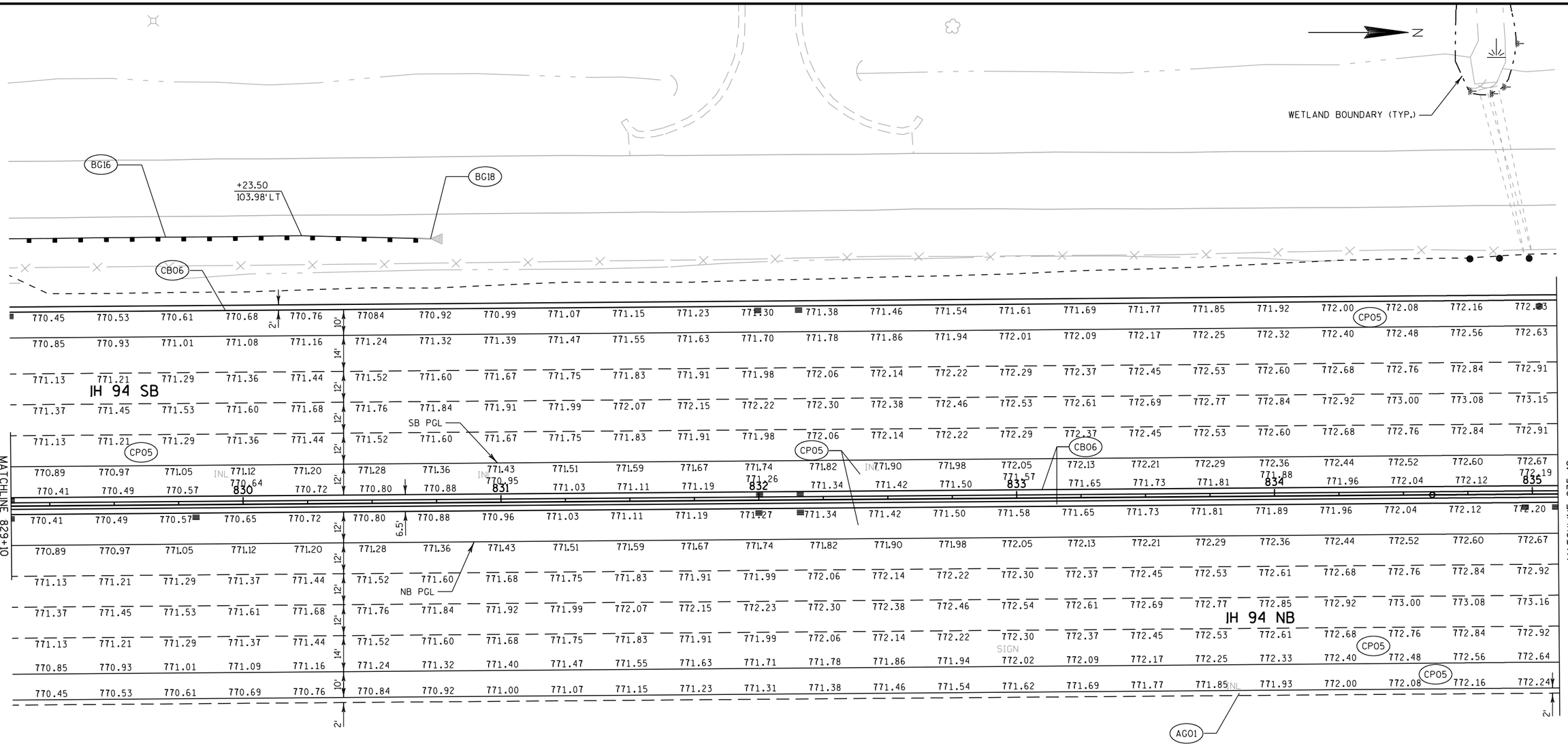
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E

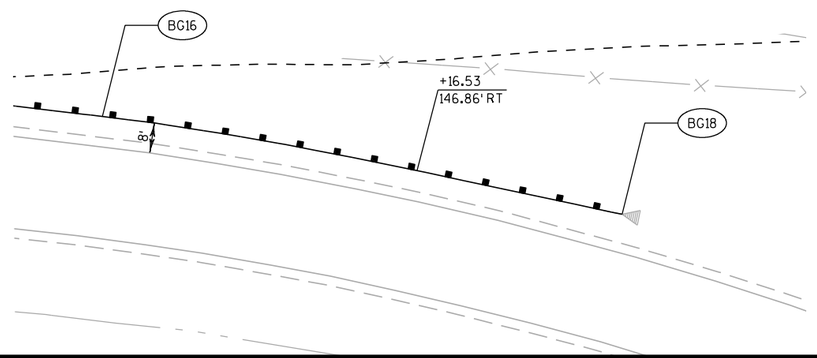
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LEGEND

CP01 CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED	CG01 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	CB12 CONCRETE BARRIER TYPE S42C
CP05 CONCRETE PAVEMENT 12-INCH SPECIAL	CG02 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A	BG16 MGS GUARDRAIL 3
CP07 CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED	CG21 CONCRETE CURB AND GUTTER 4-INCH SLOPED 60-INCH TYPE A	BG17 MGS THRIE BEAM TRANSITION
AP13 HMA PAVEMENT TYPE E-10, 7 1/2-INCH	CM01 CONCRETE MEDIAN SLOPED NOSE TYPE 1	BG18 MGS GUARDRAIL TERMINAL EAT
AG01 BASE AGGREGATE DENSE 3/4-INCH	CB06 CONCRETE BARRIER TYPE S42	BG13 GUARD RAIL MOW STRIP CONCRETE
PV01 CONCRETE PAVEMENT APPROACH SLAB	CB08 CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE	SW02 SAWING CONCRETE
PV02 SLOPE PAVING CONCRETE		
PV11 CONCRETE SURFACE DRAIN		

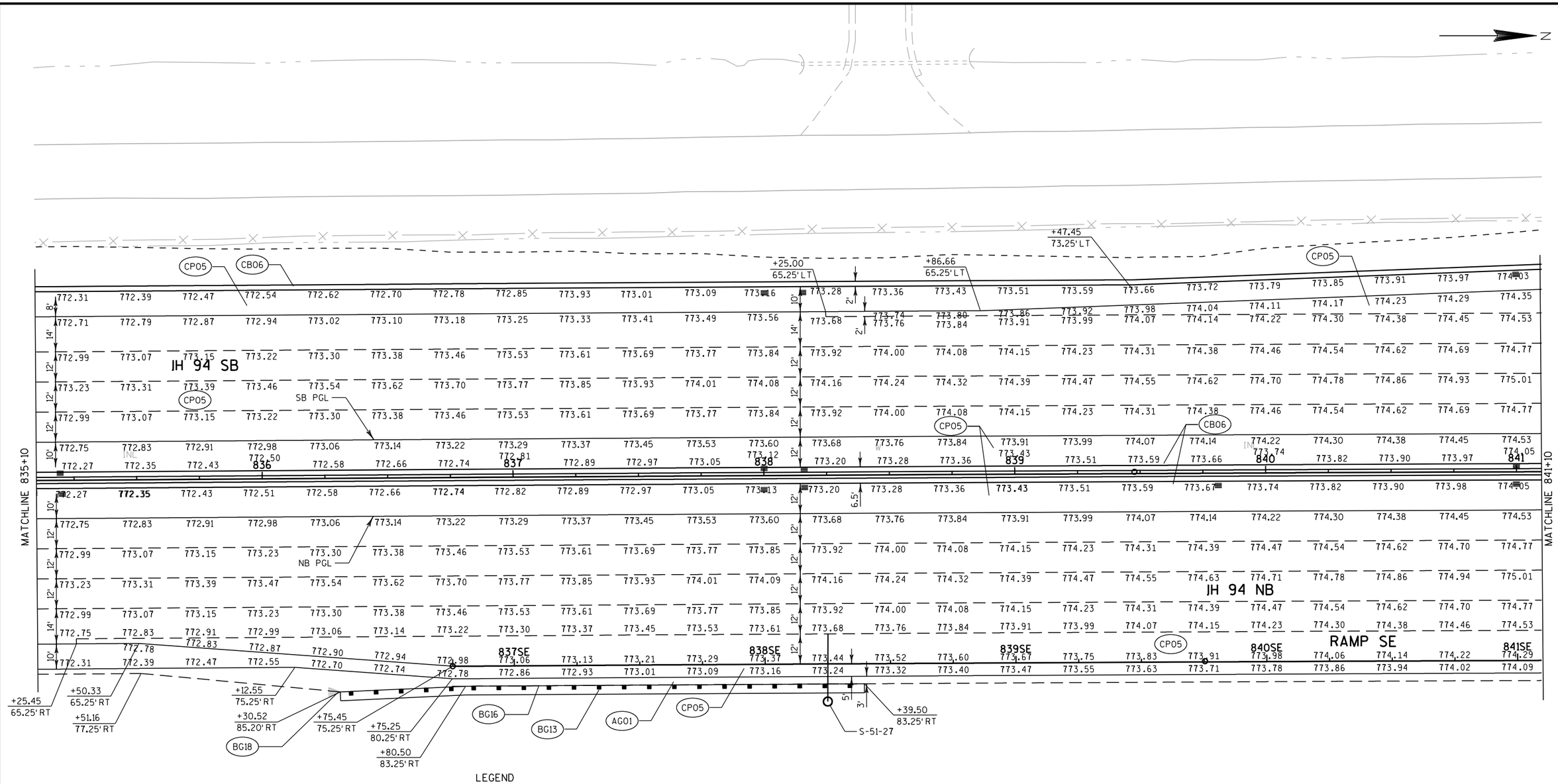




LEGEND

- CP01 CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- CP05 CONCRETE PAVEMENT 12-INCH SPECIAL
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- BG17 MGS THRIE BEAM TRANSITION
- BG18 MGS GUARDRAIL TERMINAL EAT
- BG13 GUARD RAIL MOW STRIP CONCRETE
- SW02 SAWING CONCRETE

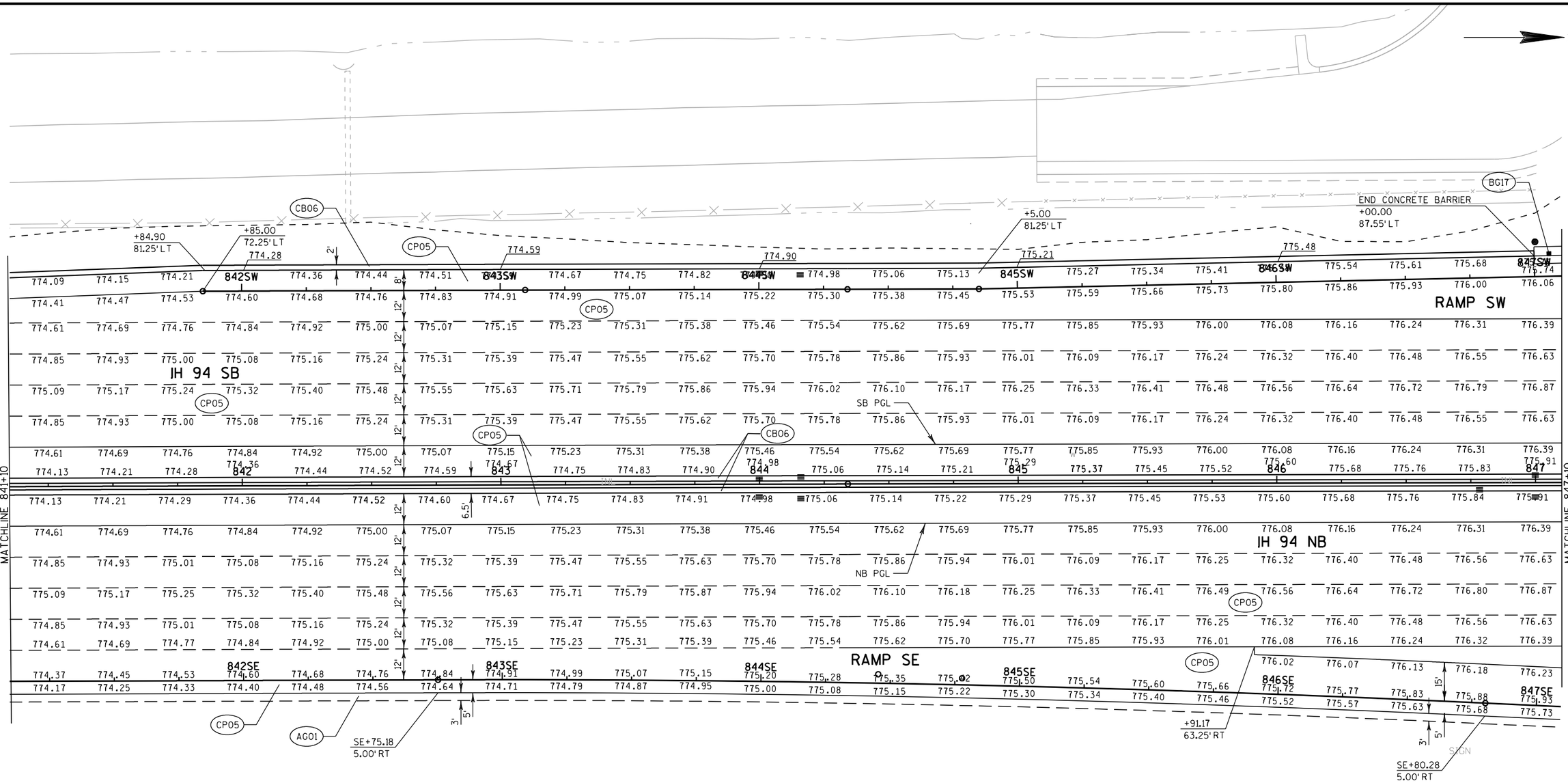
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E



LEGEND

CP01 CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED	CG01 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	CB12 CONCRETE BARRIER TYPE S42C
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PV02 SLOPE PAVING CONCRETE		
PV11 CONCRETE SURFACE DRAIN		

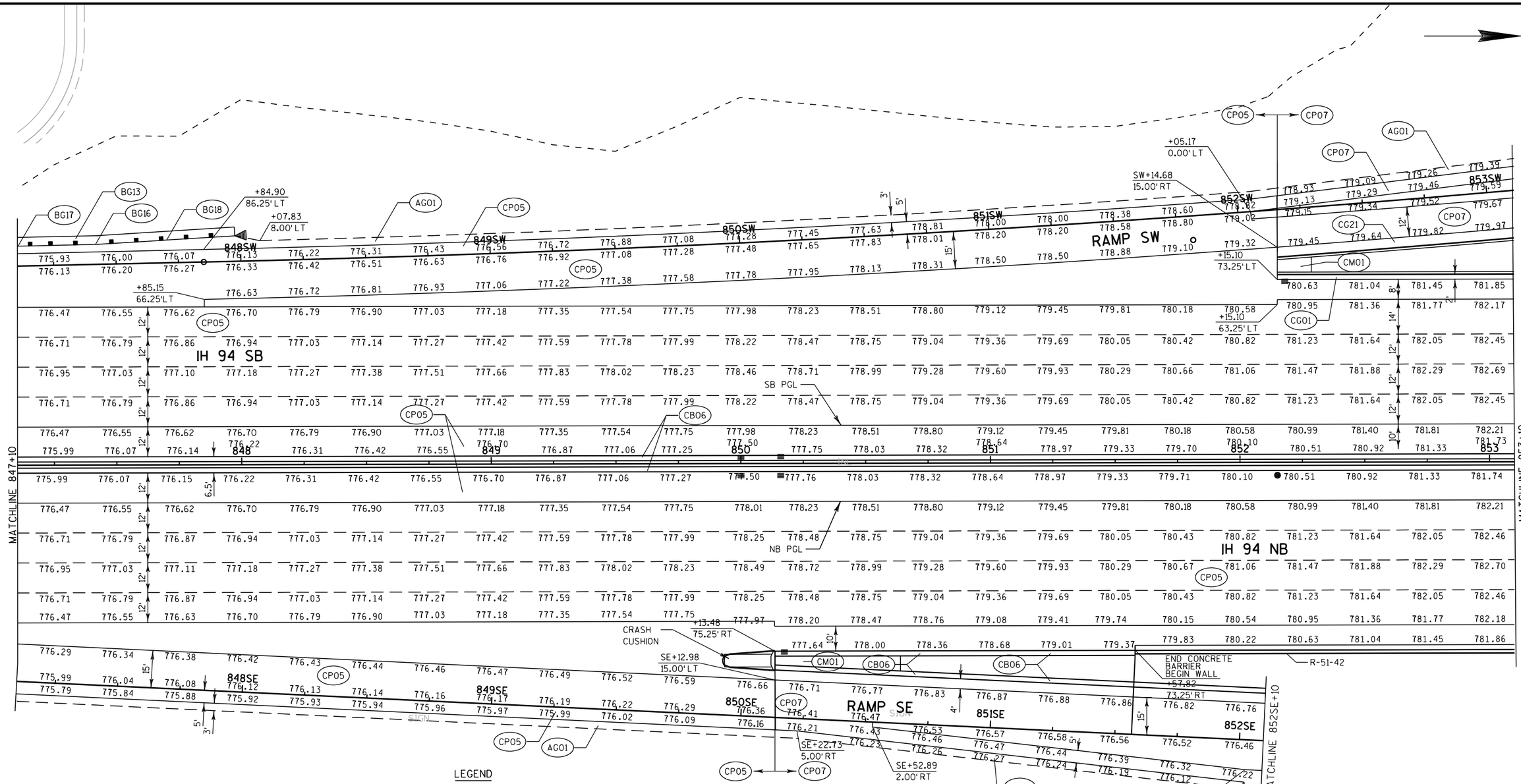
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E



LEGEND

- (CP01) CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- (CP05) CONCRETE PAVEMENT 12-INCH SPECIAL
- (CP07) CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED
- (AP13) HMA PAVEMENT TYPE E-10, 7 1/2-INCH
- (AG01) BASE AGGREGATE DENSE 3/4-INCH
- (PV01) CONCRETE PAVEMENT APPROACH SLAB
- (PV02) SLOPE PAVING CONCRETE
- (PV11) CONCRETE SURFACE DRAIN
- (CG01) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
- (CG02) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
- (CG21) CONCRETE CURB AND GUTTER 4-INCH SLOPED 60-INCH TYPE A
- (CM01) CONCRETE MEDIAN SLOPED NOSE TYPE 1
- (CB06) CONCRETE BARRIER TYPE S42
- (CB08) CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
- (CB12) CONCRETE BARRIER TYPE S42C
- (BG16) MGS GUARDRAIL 3
- (BG17) MGS THRIE BEAM TRANSITION
- (BG18) MGS GUARDRAIL TERMINAL EAT
- (BG13) GUARD RAIL MOW STRIP CONCRETE
- (SW02) SAWING CONCRETE

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E



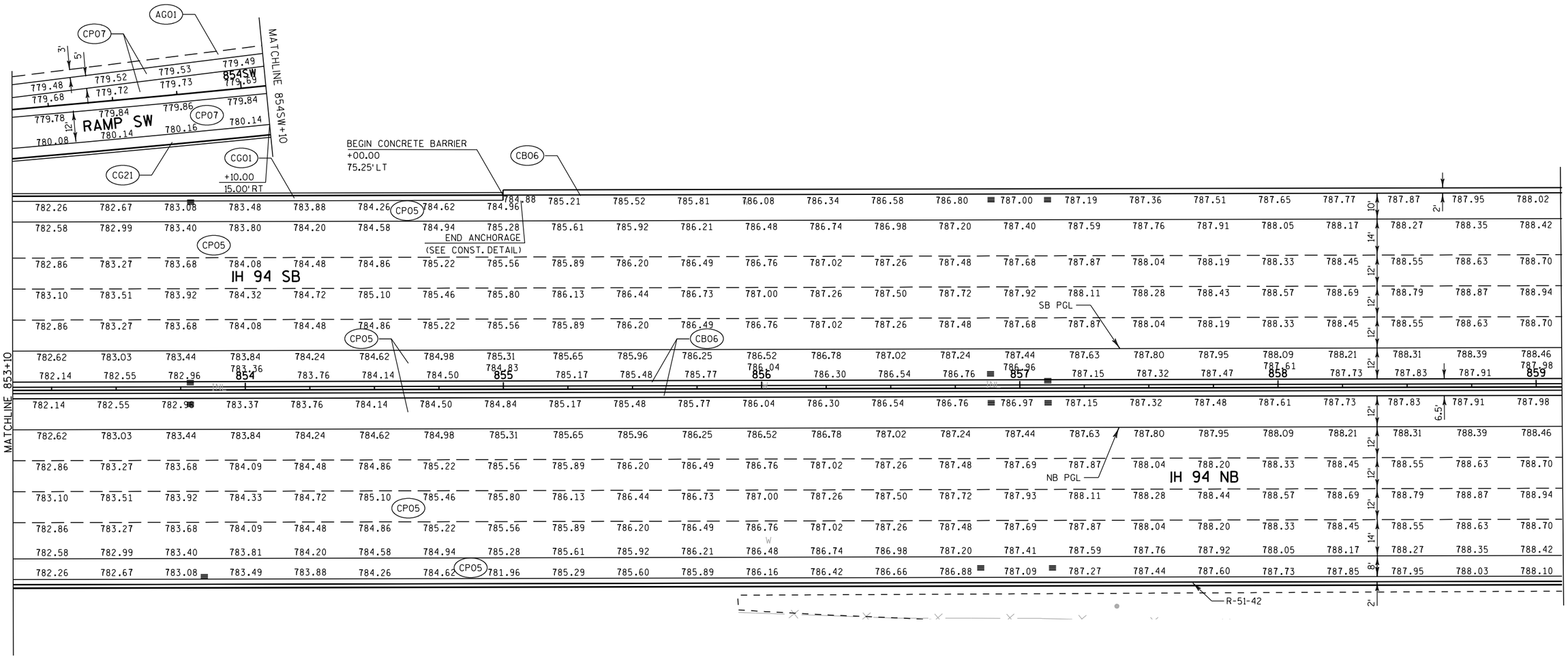
LEGEND

- CP01 CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- CP05 CONCRETE PAVEMENT 12-INCH SPECIAL
- CP07 CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED
- AP13 HMA PAVEMENT TYPE E-10, 7 1/2-INCH
- AG01 BASE AGGREGATE DENSE 3/4-INCH
- PV01 CONCRETE PAVEMENT APPROACH SLAB
- PV02 SLOPE PAVING CONCRETE
- PV11 CONCRETE SURFACE DRAIN
- CG01 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
- CG02 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
- CG21 CONCRETE CURB AND GUTTER 4-INCH SLOPED 60-INCH TYPE A
- CM01 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- CB06 CONCRETE BARRIER TYPE S42
- CB08 CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
- CB12 CONCRETE BARRIER TYPE S42C
- BG16 MGS GUARDRAIL 3
- BG17 MGS THRIE BEAM TRANSITION
- BG18 MGS GUARDRAIL TERMINAL EAT
- BG13 GUARD RAIL MOW STRIP CONCRETE
- SW02 SAWING CONCRETE

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E

2

N



LEGEND

- (CP01) CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- (CP05) CONCRETE PAVEMENT 12-INCH SPECIAL
- (CP07) CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED
- (AP13) HMA PAVEMENT TYPE E-10, 7 1/2-INCH
- (AG01) BASE AGGREGATE DENSE 3/4-INCH
- (PV01) CONCRETE PAVEMENT APPROACH SLAB
- (PV02) SLOPE PAVING CONCRETE
- (PV11) CONCRETE SURFACE DRAIN
- (CG01) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
- (CG02) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
- (CG21) CONCRETE CURB AND GUTTER 4-INCH SLOPED 60-INCH TYPE A
- (CM01) CONCRETE MEDIAN SLOPED NOSE TYPE 1
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- (CB08) CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
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- (BG17) MGS THRIE BEAM TRANSITION
- (BG18) MGS GUARDRAIL TERMINAL EAT
- (BG13) GUARD RAIL MOW STRIP CONCRETE
- (SW02) SAWING CONCRETE

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E

2

862SW
863SW
864NW
INL
764.72
764.65
764.58
764.55
END CONCRETE BARRIER
+03.21
75.25' LT
BEGIN CONCRETE BARRIER
+37.38
75.25' LT
CB06
B-51-129
B-51-43
293
294+10.29 STH 20 =
862+37.60 IH 94
IH 94 SB
SB PGL
NB PGL
CP05
PV01
15.7'
END CONCRETE BARRIER
+31.35
1.94' LT
BEGIN CONCRETE BARRIER
+45.53
1.94' LT
END CONCRETE BARRIER
+29.67
1.94' RT
BEGIN CONCRETE BARRIER
+43.85
1.94' RT
MATCHLINE 859+10
MATCHLINE 865+10
860
861
862
863
864
865
294
R-51-43
R-51-42
B-51-130
BEGIN CONCRETE BARRIER
+77.01
75.25' RT
IH 94 NB
STH 20
295
296
860SE
861SE

788.07 788.10 788.11 788.11 788.09 788.05 788.08 788.11
788.47 788.50 788.51 788.51 788.49 788.45 788.39 788.32
788.75 788.78 788.79 788.79 788.77 788.73 788.67 788.60
788.99 789.02 789.03 789.03 789.01 788.97 788.91 788.84
788.75 788.78 788.79 788.79 788.77 788.73 788.67 788.60
788.51 788.54 788.55 788.55 788.53 788.49 788.43 788.36
788.03 788.06 788.07 788.07 788.05 788.01 787.95 787.88
788.03 788.06 788.07 788.07 788.05 788.01 787.97
788.51 788.54 788.55 788.55 788.53 788.49
788.75 788.78 788.79 788.79 788.77 788.73
788.99 789.02 789.03 789.03 789.01 788.97
788.75 788.78 788.79 788.79 788.77 788.73
788.47 788.50 788.51 788.51 788.49 788.45
788.15 788.18 788.19 788.19 788.17 788.13

785.46 785.11 784.74 784.39
785.79 785.48 785.14 784.79
786.07 785.76 785.42 785.07
786.31 786.00 785.66 785.31
786.07 785.76 785.42 785.07
785.83 785.52 785.18 784.83
785.35 785.04 784.70 784.35
785.65 785.36 785.04 784.71 784.36
786.13 785.83 785.52 785.18 784.83
786.37 786.08 785.76 785.43 785.08
786.61 786.32 786.00 785.67 785.32
786.37 786.08 785.76 785.43 785.08
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785.69 785.40 785.08 784.75 784.40

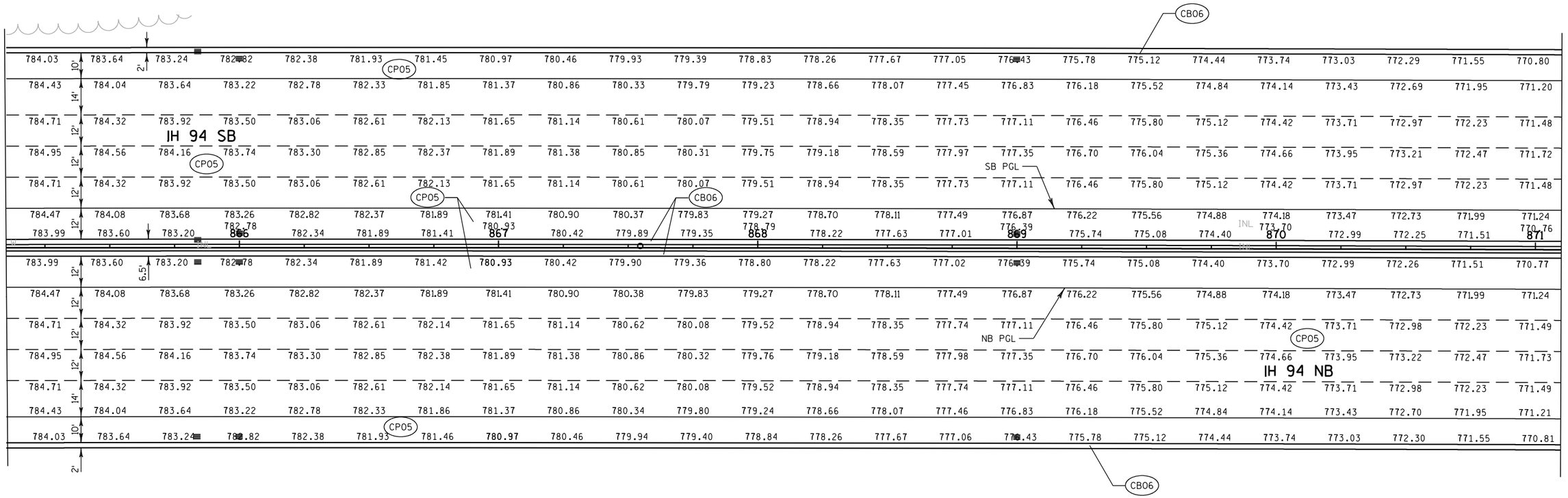
LEGEND

CP01	CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
CP05	CONCRETE PAVEMENT 12-INCH SPECIAL
CP07	CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED
AP13	HMA PAVEMENT TYPE E-10, 7 1/2-INCH
AG01	BASE AGGREGATE DENSE 3/4-INCH
PV01	CONCRETE PAVEMENT APPROACH SLAB
PV02	SLOPE PAVING CONCRETE
PV11	CONCRETE SURFACE DRAIN
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
CG21	CONCRETE CURB AND GUTTER 4-INCH SLOPED 60-INCH TYPE A
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CB06	CONCRETE BARRIER TYPE S42
CB08	CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
CB12	CONCRETE BARRIER TYPE S42C
BG16	MGS GUARDRAIL 3
BG17	MGS THRIE BEAM TRANSITION
BG18	MGS GUARDRAIL TERMINAL EAT
BG13	GUARD RAIL MOW STRIP CONCRETE
SW02	SAWING CONCRETE

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E

2

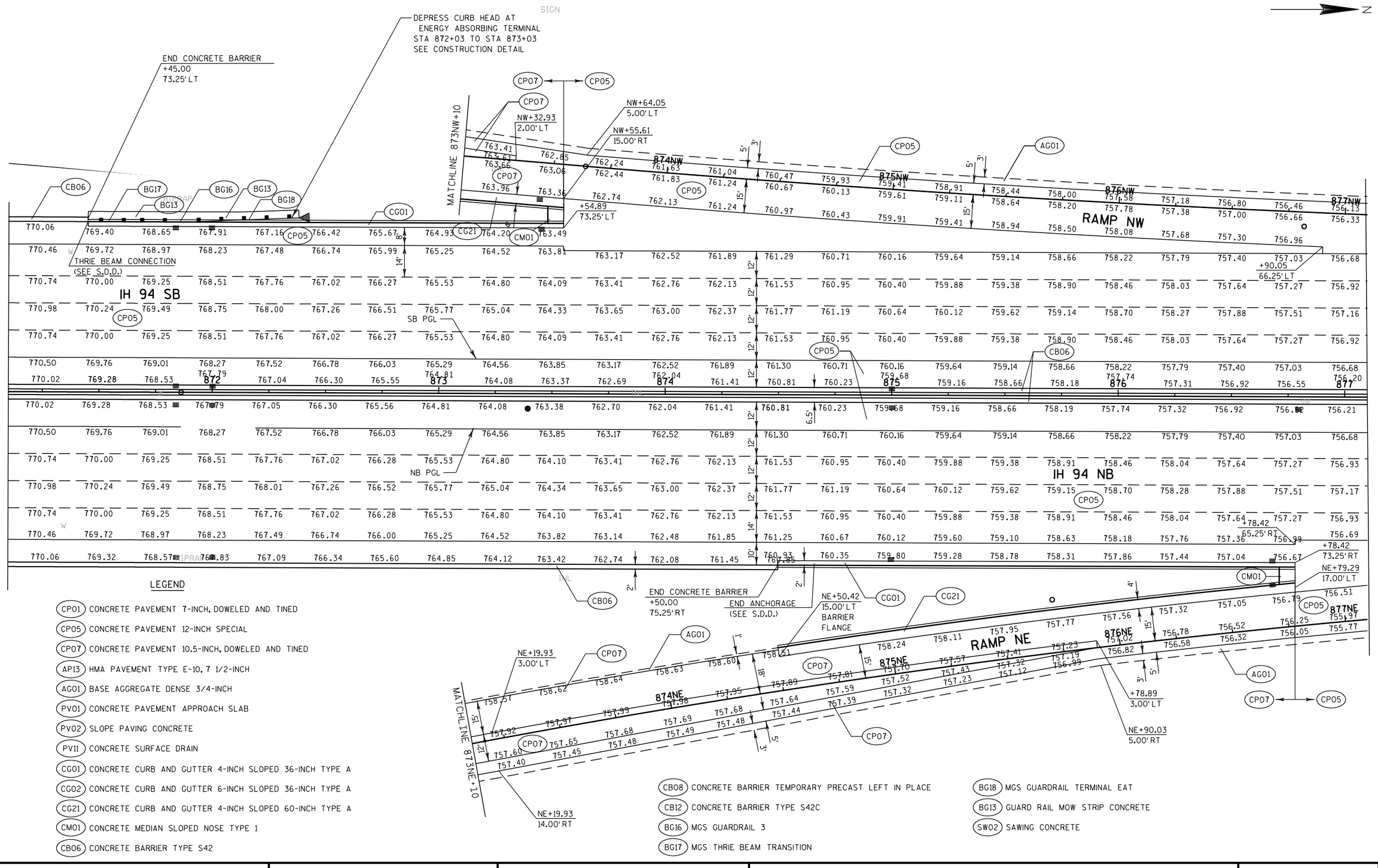
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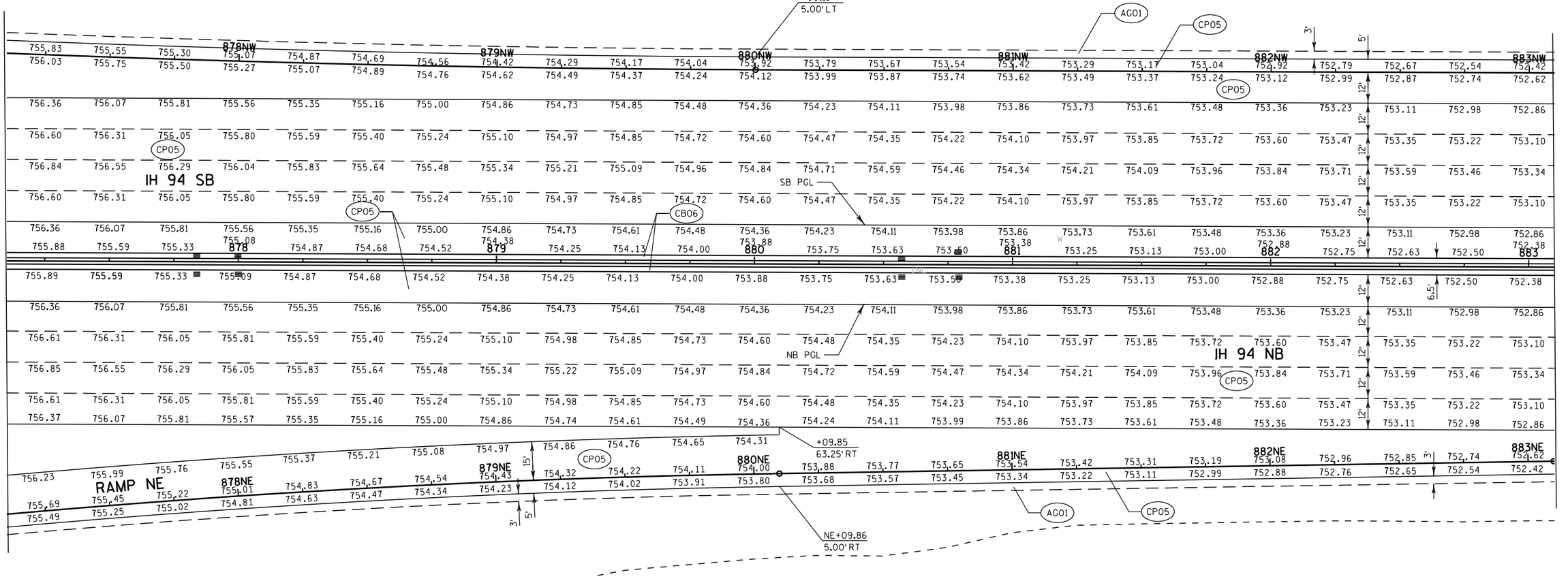


LEGEND

- CPO1 CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- CPO5 CONCRETE PAVEMENT 12-INCH SPECIAL
- CPO7 CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED
- AP13 HMA PAVEMENT TYPE E-10, 7 1/2-INCH
- AG01 BASE AGGREGATE DENSE 3/4-INCH
- PV01 CONCRETE PAVEMENT APPROACH SLAB
- PV02 SLOPE PAVING CONCRETE
- PV11 CONCRETE SURFACE DRAIN
- CG01 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
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- CB06 CONCRETE BARRIER TYPE S42
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- BG16 MGS GUARDRAIL 3
- BG17 MGS THRIE BEAM TRANSITION
- BG18 MGS GUARDRAIL TERMINAL EAT
- BG13 GUARD RAIL MOW STRIP CONCRETE
- SW02 SAWING CONCRETE

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E

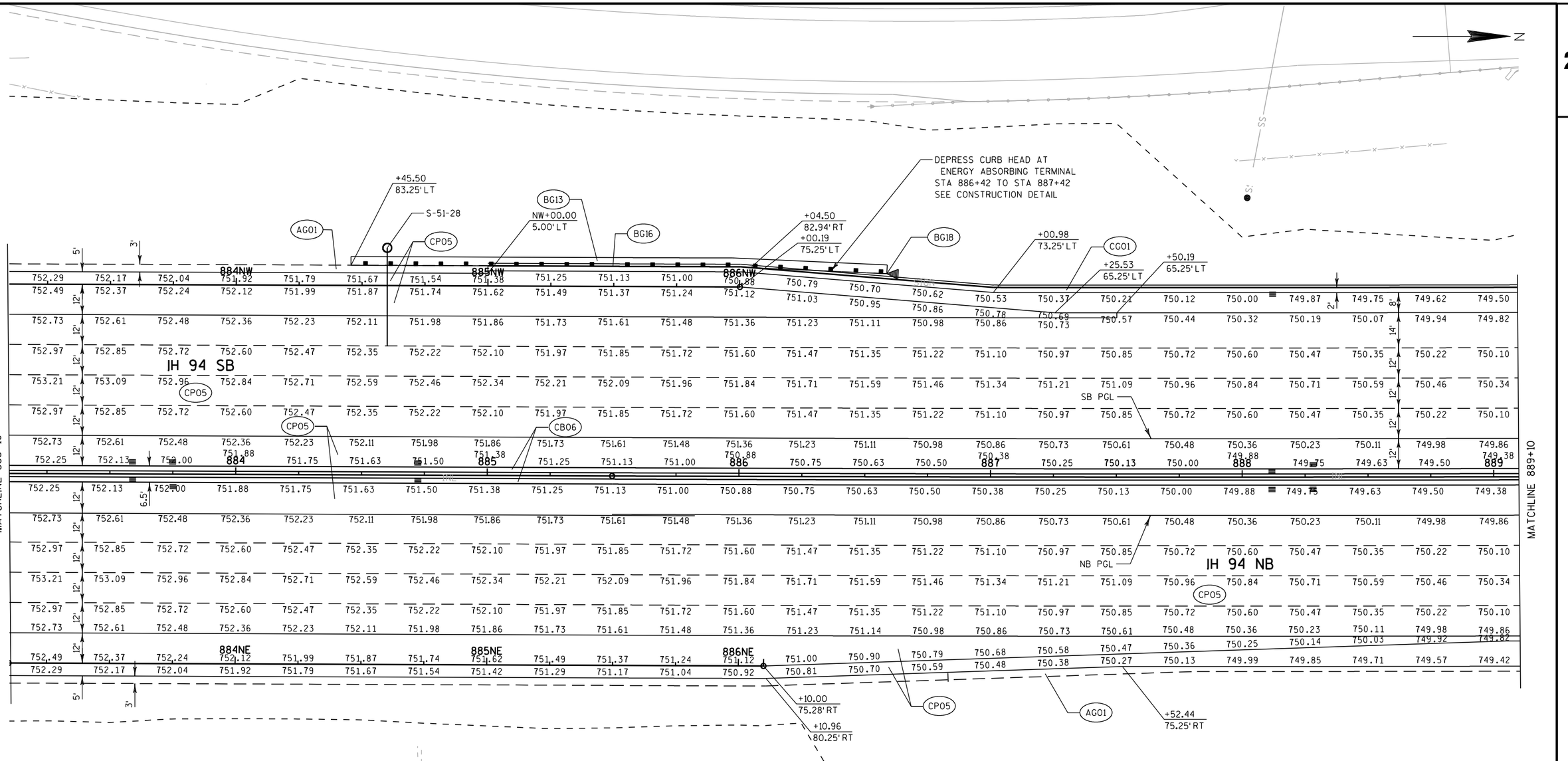

N
SIGN
DEPRESS CURB HEAD AT
ENERGY ABSORBING TERMINAL
STA 872+03 TO STA 873+03
SEE CONSTRUCTION DETAIL
END CONCRETE BARRIER
+45.00
73.25'LT
MATCHLINE 873NW+10
NW+32.93
2.00'LT
NW+64.05
5.00'LT
NW+55.61
15.00'RT
+54.89
73.25'LT
RIPRAP
THRIE BEAM CONNECTION
(SEE S.D.D.)
IH 94 SB
SB PGL
NB PGL
IH 94 NB
RAMP NW
RAMP NE
+90.05
66.25'LT
+78.42
65.25'RT
+78.42
73.25'RT
NE+79.29
17.00'LT
+78.89
3.00'LT
NE+90.03
5.00'RT
NE+19.93
3.00'LT
NE+19.93
14.00'RT
MATCHLINE 871+10
MATCHLINE 877+10
MATCHLINE 873NE+10
END CONCRETE BARRIER
+50.00
75.25'RT
END ANCHORAGE
(SEE S.D.D.)
NE+50.42
15.00'LT
BARRIER
FLANGE
CB06
BG17
BG13
BG16
BG13
BG18
CG01
CP05
CP07
CG21
CM01
AG01
CB06
CP05
CP07
CP05
CP07
CP05
CP07



LEGEND

- (CP01) CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- (CP05) CONCRETE PAVEMENT 12-INCH SPECIAL
- (CP07) CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED
- (AP13) HMA PAVEMENT TYPE E-10, 7 1/2-INCH
- (AGO1) BASE AGGREGATE DENSE 3/4-INCH
- (PV01) CONCRETE PAVEMENT APPROACH SLAB
- (PV02) SLOPE PAVING CONCRETE
- (PV11) CONCRETE SURFACE DRAIN
- (CGO1) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
- (CGO2) CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
- (CG21) CONCRETE CURB AND GUTTER 4-INCH SLOPED 60-INCH TYPE A
- (CM01) CONCRETE MEDIAN SLOPED NOSE TYPE 1
- (CB06) CONCRETE BARRIER TYPE S42
- (CB08) CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
- (CB12) CONCRETE BARRIER TYPE S42C
- (BG16) MGS GUARDRAIL 3
- (BG17) MGS THRIE BEAM TRANSITION
- (BG18) MGS GUARDRAIL TERMINAL EAT
- (BG13) GUARD RAIL MOW STRIP CONCRETE
- (SW02) SAWING CONCRETE

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E



LEGEND

- (CP01) CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- (CP05) CONCRETE PAVEMENT 12-INCH SPECIAL
- (CP07) CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED
- (AP13) HMA PAVEMENT TYPE E-10, 7 1/2-INCH
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- (BG18) MGS GUARDRAIL TERMINAL EAT
- (BG13) GUARD RAIL MOW STRIP CONCRETE
- (SW02) SAWING CONCRETE

WETLAND BOUNDARY (TYP.)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E

LEGEND

- (CP01) CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- (CP05) CONCRETE PAVEMENT 12-INCH SPECIAL
- (CP07) CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED
- (AP13) HMA PAVEMENT TYPE E-10, 7 1/2-INCH
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- (BG16) MGS GUARDRAIL 3
- (BG17) MGS THRIE BEAM TRANSITION
- (BG18) MGS GUARDRAIL TERMINAL EAT
- (BG13) GUARD RAIL MOW STRIP CONCRETE
- (SW02) SAWING CONCRETE

N

CTH C

67+39.92 CTH C =
890+63.59 IH 94

MATCHLINE 889+10

MATCHLINE 895+10

IH 94 SB

IH 94 NB

SB PGL

NB PGL

END PROJECT
I.D. 1033-02-72
STA. 895+00.00

+00.00
73.25'LT

+00.00
65.25'LT

+00.00
51.25'LT

+00.00
15.25'LT

+00.00
15.25'RT

+00.00
51.25'RT

+00.00
65.25'RT

+00.00
67.25'RT

+00.00
75.25'RT

+70.00
65.25'RT

+50.00
73.25'RT

+56.91
75.25'RT

+00.00
73.25'RT

+00.00
73.25'RT

+50.00
73.25'RT

BEGIN CONCRETE BARRIER

END ANCHORAGE
(SEE S.D.D.)

DEPRESS CURB HEAD AT
ENERGY ABSORBING TERMINAL
STA 891+44 TO STA 892+44
SEE CONSTRUCTION DETAIL

890 891 892 893 894 895

66 67 68 69

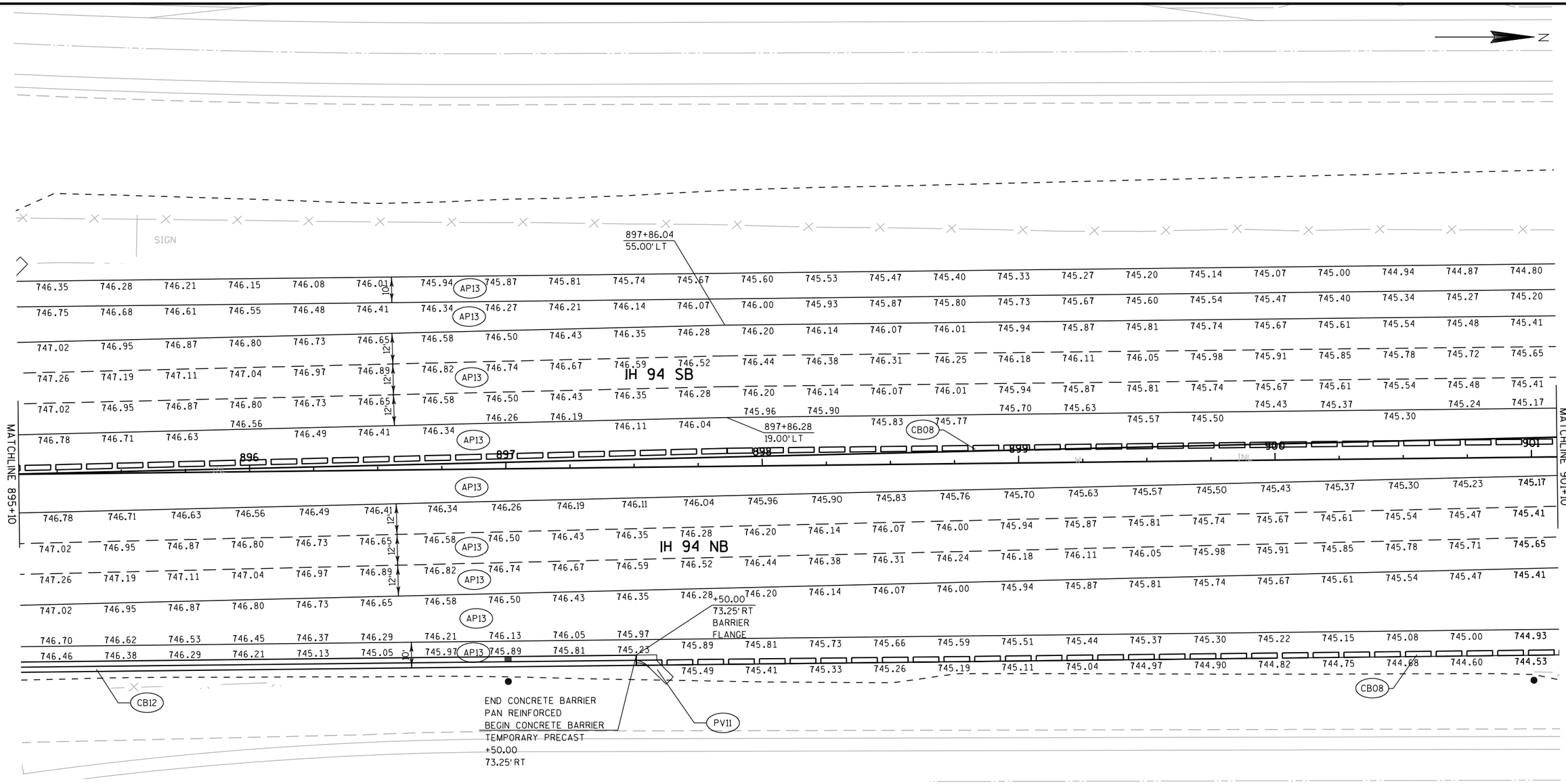
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E

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WISDOT/CADDS SHEET 42

2

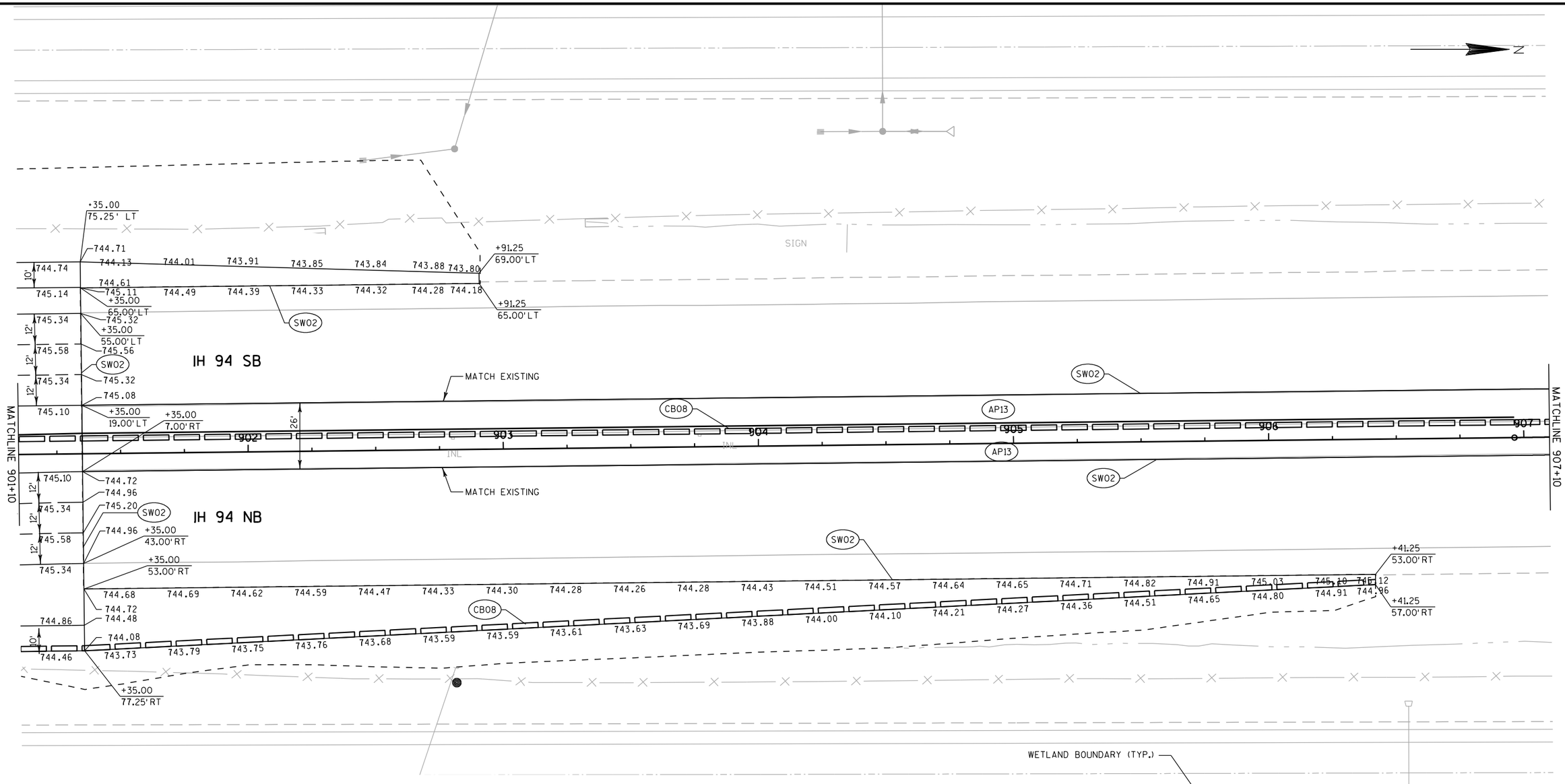


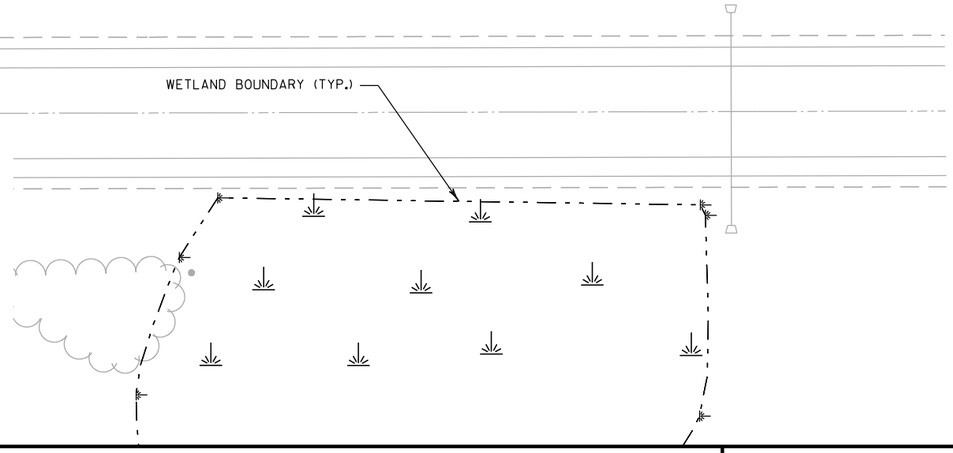
LEGEND

- (CP01) CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- (CP05) CONCRETE PAVEMENT 12-INCH SPECIAL
- (CP07) CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED
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- (PV01) CONCRETE PAVEMENT APPROACH SLAB
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- (BG16) MGS GUARDRAIL 3
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- (BG18) MGS GUARDRAIL TERMINAL EAT
- (BG13) GUARD RAIL MOW STRIP CONCRETE
- (SW02) SAWING CONCRETE

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E

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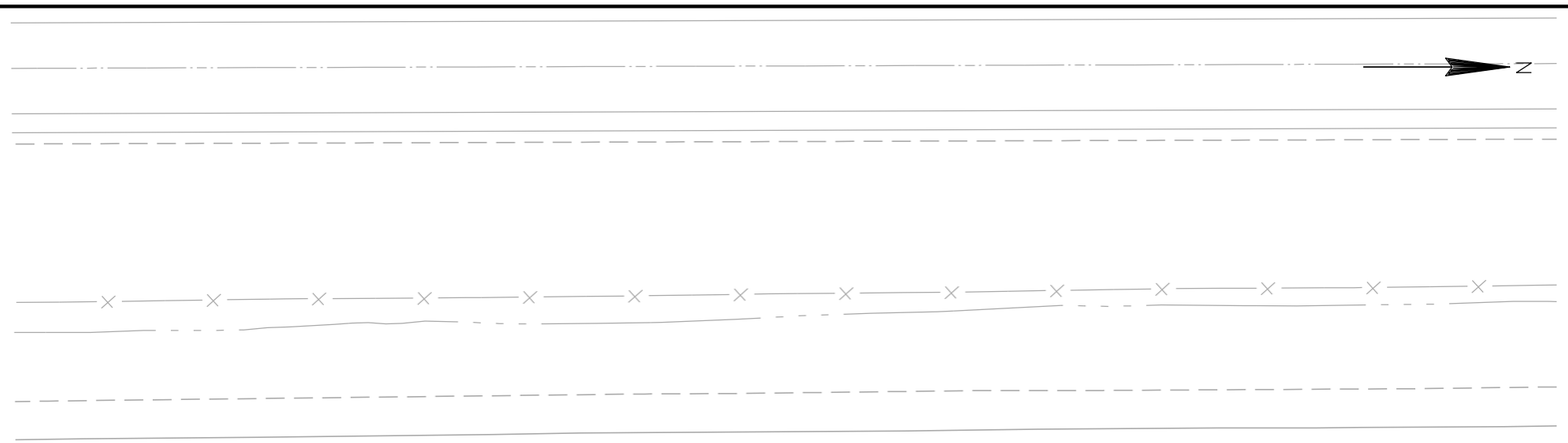


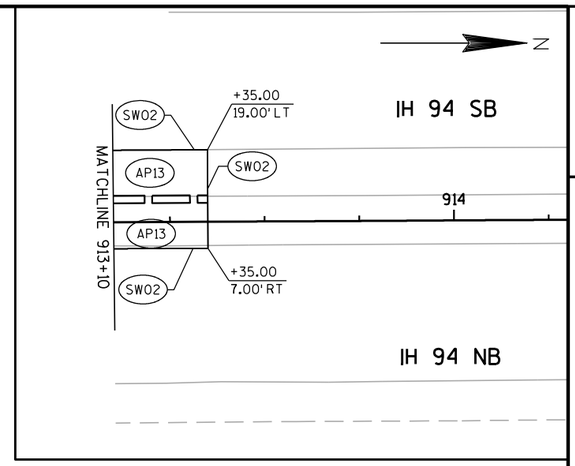


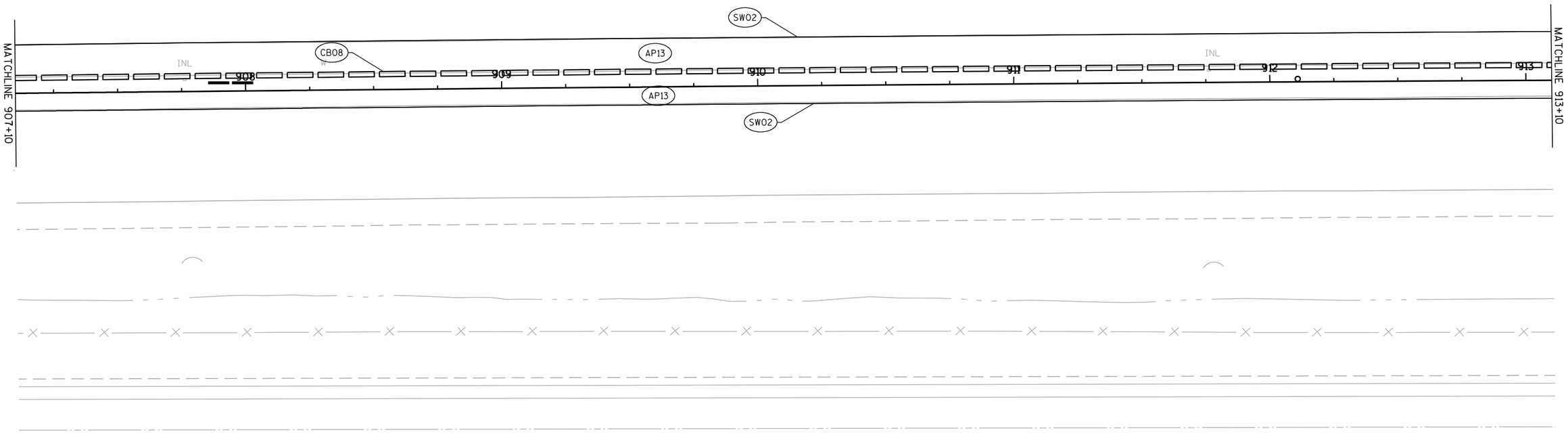
LEGEND

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- (CP05) CONCRETE PAVEMENT 12-INCH SPECIAL
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E







2

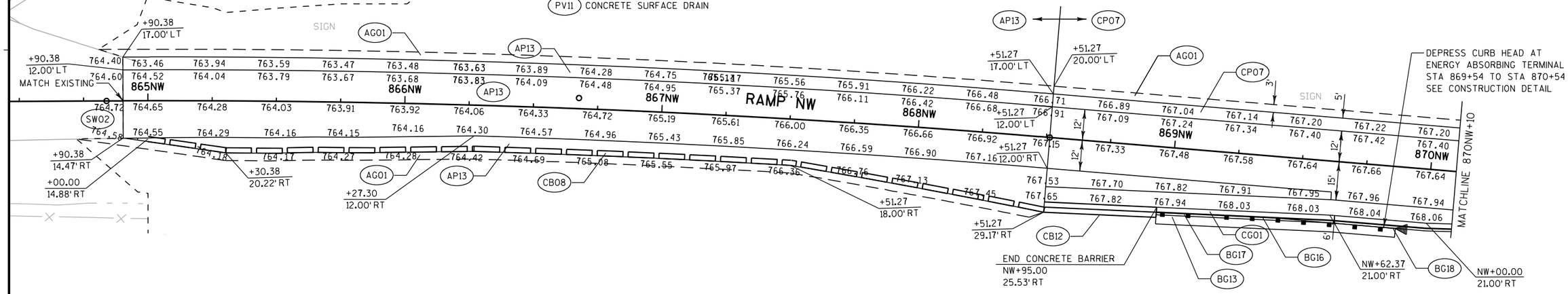
LEGEND

- CP01 CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- CP05 CONCRETE PAVEMENT 12-INCH SPECIAL
- CP07 CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED
- AP13 HMA PAVEMENT TYPE E-10, 7 1/2-INCH
- AG01 BASE AGGREGATE DENSE 3/4-INCH
- PV01 CONCRETE PAVEMENT APPROACH SLAB
- PV02 SLOPE PAVING CONCRETE
- PV11 CONCRETE SURFACE DRAIN
- CG01 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
- CG02 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
- CG21 CONCRETE CURB AND GUTTER 4-INCH SLOPED 60-INCH TYPE A
- CM01 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- CB06 CONCRETE BARRIER TYPE S42
- CB08 CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
- CB12 CONCRETE BARRIER TYPE S42C
- BG16 MGS GUARDRAIL 3
- BG17 MGS THRIE BEAM TRANSITION
- BG18 MGS GUARDRAIL TERMINAL EAT
- BG13 GUARD RAIL MOW STRIP CONCRETE
- SW02 SAWING CONCRETE

LEGEND

- CP01 CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- CP05 CONCRETE PAVEMENT 12-INCH SPECIAL
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- BG13 GUARD RAIL MOW STRIP CONCRETE
- SW02 SAWING CONCRETE

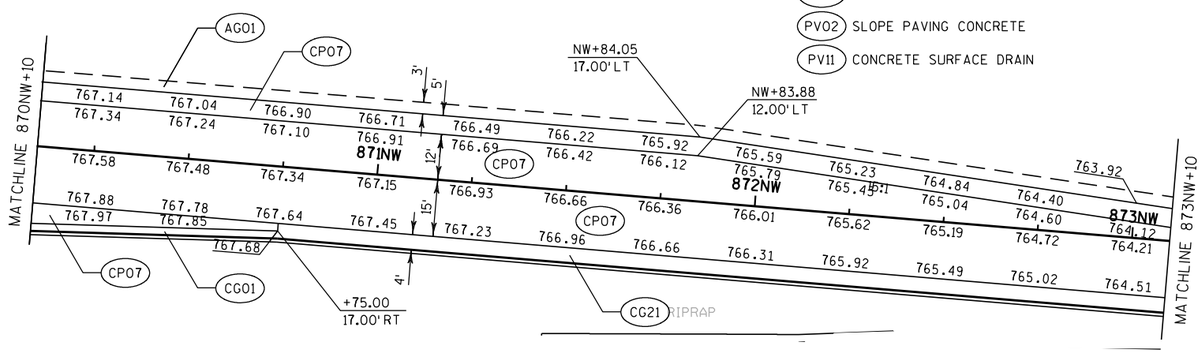
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LEGEND

- CP01 CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- CP05 CONCRETE PAVEMENT 12-INCH SPECIAL
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- BG18 MGS GUARDRAIL TERMINAL EAT
- BG13 GUARD RAIL MOW STRIP CONCRETE
- SW02 SAWING CONCRETE

N



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E

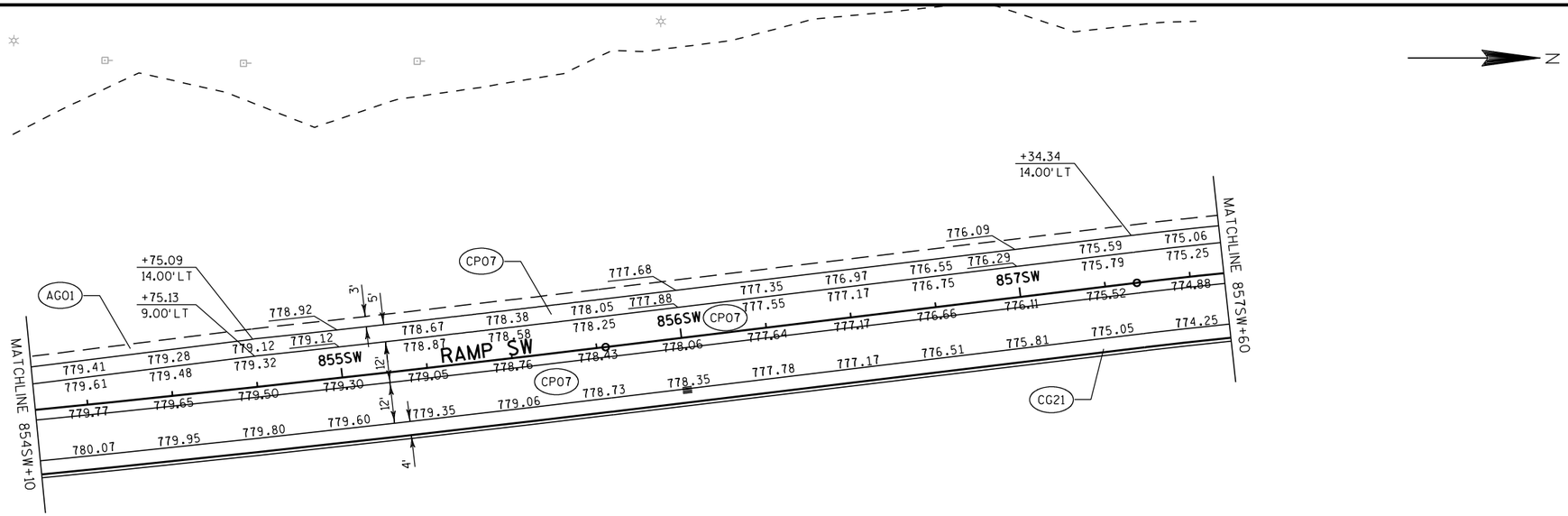
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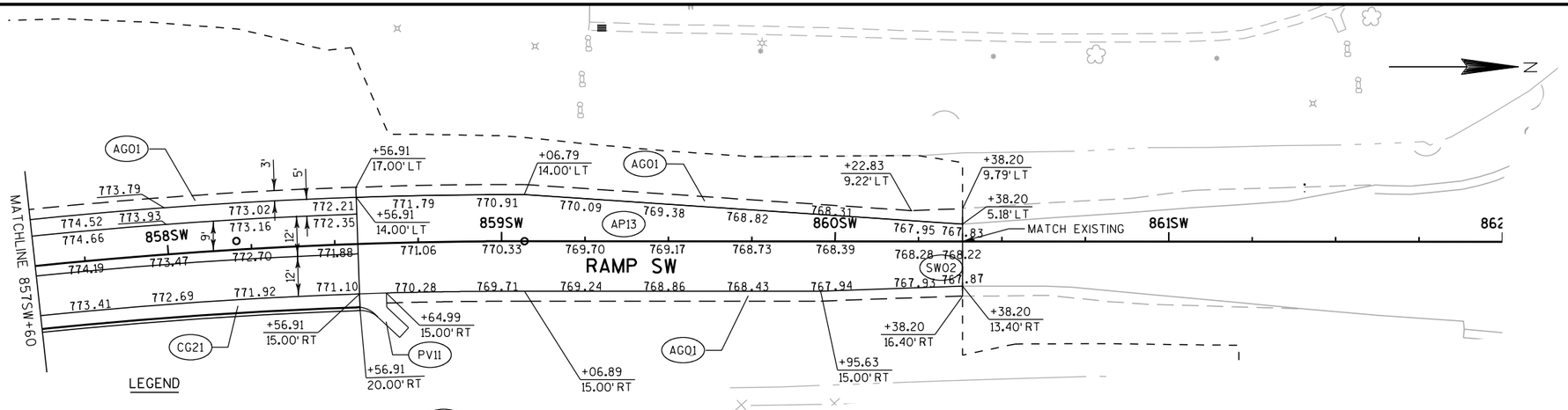
WISDOT/CADDS SHEET 42

2

LEGEND

- (CP01) CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- (CP05) CONCRETE PAVEMENT 12-INCH SPECIAL
- (CP07) CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED
- (AP13) HMA PAVEMENT TYPE E-10, 7 1/2-INCH
- (AG01) BASE AGGREGATE DENSE 3/4-INCH
- (PV01) CONCRETE PAVEMENT APPROACH SLAB
- (PV02) SLOPE PAVING CONCRETE
- (PV11) CONCRETE SURFACE DRAIN
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- (CG21) CONCRETE CURB AND GUTTER 4-INCH SLOPED 60-INCH TYPE A
- (CM01) CONCRETE MEDIAN SLOPED NOSE TYPE 1
- (CB06) CONCRETE BARRIER TYPE S42
- (CB08) CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
- (CB12) CONCRETE BARRIER TYPE S42C
- (BG16) MGS GUARDRAIL 3
- (BG17) MGS THRIE BEAM TRANSITION
- (BG18) MGS GUARDRAIL TERMINAL EAT
- (BG13) GUARD RAIL MOW STRIP CONCRETE
- (SW02) SAWING CONCRETE





LEGEND

- (CP01) CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
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- (CB08) CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE
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- (BG16) MGS GUARDRAIL 3
- (BG17) MGS THRIE BEAM TRANSITION
- (BG18) MGS GUARDRAIL TERMINAL EAT
- (BG13) GUARD RAIL MOW STRIP CONCRETE
- (SW02) SAWING CONCRETE

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E

2

N

END CONCRETE BARRIER
+12.57
19.00' LT

MATCHLINE 852SE+10

776.67 776.55 776.40 776.24 776.04 775.82 775.58 775.30 775.01 774.68 774.34 773.96 773.56 773.14 772.69 772.49 772.25 771.89 771.59 771.35 771.13 770.88 770.68 770.26 769.68

776.37 776.25 776.10 775.94 775.74 775.52 775.28 775.00 774.71 774.38 774.04 773.66 773.26 772.84 772.39 772.11 771.91 771.51 771.20 770.98 770.77 770.52 770.23 769.90 769.45

776.13 776.01 775.86 775.70 775.50 775.28 775.04 774.76 774.47 774.14 773.80 773.42 773.02 772.60 772.15 771.69 771.55 771.15 770.89 770.71 770.55 770.34 770.10 769.83

776.01 775.89 775.74 775.58 775.38 775.16 774.92 774.64 774.35 774.02 773.68 773.30 772.90 772.48 772.03

15' 12' 6' 4' 15' 12' 6'

CP07 853SE RAMP SE 854SE 855SE 856SE 857SE 858SE

CG21 CG21 PV11 AP13 SW02

+89.58
19.00' LT

+99.13
15.00' LT

+04.00
23.30' LT

+89.58
10.62' RT

+89.58
18.00' RT

+89.58
21.00' RT

+05.07
2.17' RT

THRIE BEAM CONNECTION
(SEE S.D.D.)

CG01 CP07 PV11 AG01

MATCH EXISTING

SIGN

SIGN

SIGN

LEGEND

- CP01 CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- CP05 CONCRETE PAVEMENT 12-INCH SPECIAL
- CP07 CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED
- AP13 HMA PAVEMENT TYPE E-10, 7 1/2-INCH
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- BG16 MGS GUARDRAIL 3
- BG17 MGS THRIE BEAM TRANSITION
- BG18 MGS GUARDRAIL TERMINAL EAT
- BG13 GUARD RAIL MOW STRIP CONCRETE
- SW02 SAWING CONCRETE

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E

2

N

296

297

862NE

863NE

864NE

865NE

866NE

867NE

RAMP NE

MATCHLINE 867NE+10

+55.48
9.59'LT

+55.48
6.58'LT

+55.47
9.00'RT

+55.47
13.51'RT

+94.77
19.00'LT

+94.77
18.00'LT

+48.70
14.01'LT

+52.14
9.00'RT

+94.77
14.00'LT

+94.77
17.00'LT

R=770'

AGO1

SWO2

AP13

INL

SIGN

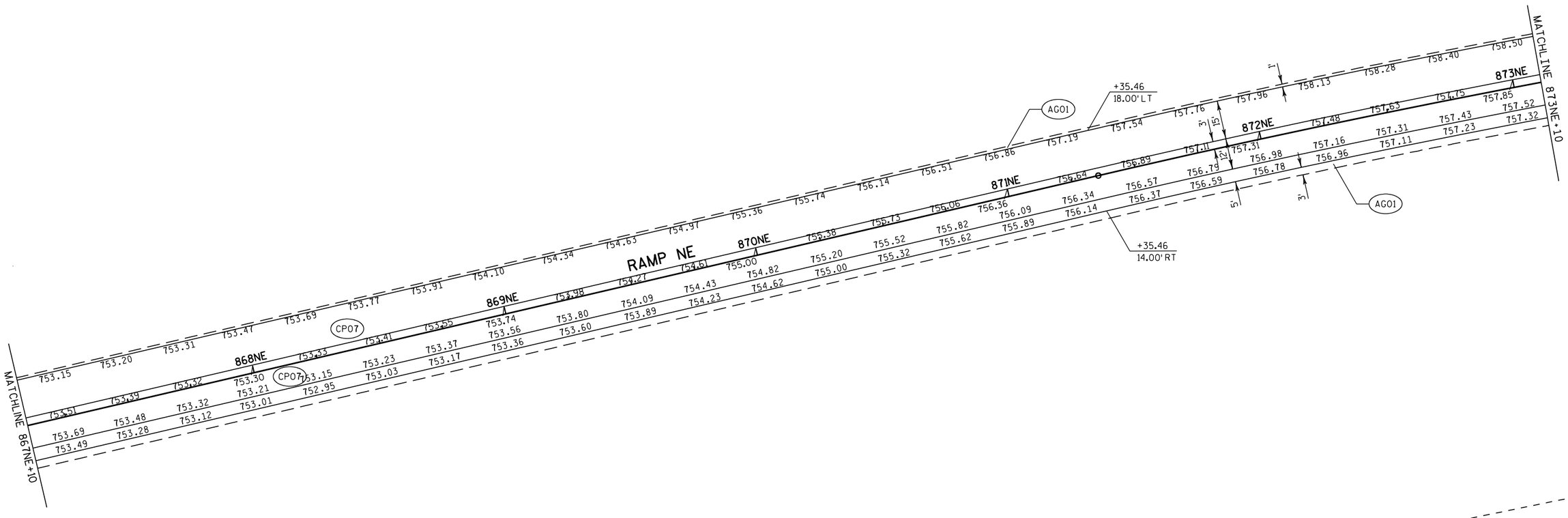
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LEGEND

CP01 CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED	CG01 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	CB12 CONCRETE BARRIER TYPE S42C
CP05 CONCRETE PAVEMENT 12-INCH SPECIAL	CG02 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A	BG16 MGS GUARDRAIL 3
CP07 CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED	CG21 CONCRETE CURB AND GUTTER 4-INCH SLOPED 60-INCH TYPE A	BG17 MGS THRIE BEAM TRANSITION
AP13 HMA PAVEMENT TYPE E-10, 7 1/2-INCH	CM01 CONCRETE MEDIAN SLOPED NOSE TYPE 1	BG18 MGS GUARDRAIL TERMINAL EAT
AGO1 BASE AGGREGATE DENSE 3/4-INCH	CB06 CONCRETE BARRIER TYPE S42	BG13 GUARD RAIL MOW STRIP CONCRETE
PV01 CONCRETE PAVEMENT APPROACH SLAB	CB08 CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE	SW02 SAWING CONCRETE
PV02 SLOPE PAVING CONCRETE		
PV11 CONCRETE SURFACE DRAIN		

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E

2



LEGEND

- CP01 CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
- CP05 CONCRETE PAVEMENT 12-INCH SPECIAL
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- BG18 MGS GUARDRAIL TERMINAL EAT
- BG13 GUARD RAIL MOW STRIP CONCRETE
- SW02 SAWING CONCRETE

2

WEST FRONTAGE ROAD

EAST FRONTAGE ROAD

IH 94 SB

IH 94 NB

CTH C

CONNECT TO EXISTING BEAM GUARD

BG16

+87.81
84.34'LT

CG01

BG13

BG17

+95.00
40.97'LT

CG01

LS01

+10.75
26.68'LT

771.74

771.67

771.72

771.75

SW02

PV01

R-51-44

65

66

67

68

69

70

CP01

771.96 771.99

771.72 771.75

15.9'

771.56 771.59

+95.00
20.00'RT

BG16

CG02

LS01

BG17

CONNECT TO EXISTING BEAM GUARD

67+39.92 CTH C =
890+63.59 IH 94

B-51-131

892

891

890

889

LS01

CG01

+75.00
20.00'LT

BG17

BG16

BG13

CONNECT TO EXISTING BEAM GUARD

769.86

15.9'

770.02

CP01

770.26

770.02

SW02

769.86

R-51-45

PV01

CONNECT TO EXISTING BEAM GUARD

+75.00
20.00'RT

BG16

BG13

BG17

CG01

LS01

N

SS

LEGEND

CP01	CONCRETE PAVEMENT 7-INCH, DOWELED AND TINED
CP05	CONCRETE PAVEMENT 12-INCH SPECIAL
CP07	CONCRETE PAVEMENT 10.5-INCH, DOWELED AND TINED
AG01	BASE AGGREGATE DENSE 3/4-INCH
PV01	CONCRETE PAVEMENT APPROACH SLAB
PV02	SLOPE PAVING CONCRETE
PV05	ASPHALTIC FLUME
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM05	CONCRETE SIDEWALK, 5-INCH
CB06	CONCRETE BARRIER TYPE S42
BG06	MGS GUARDRAIL 3
BG17	MGS THRIE BEAM TRANSITION
BG04	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
SW01	SAWING ASPHALT
SW02	SAWING CONCRETE
LS01	SOD LAWN
BG13	GUARDRAIL MONO STRIP CONCRETE

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN DETAILS	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\021225_pd.dgn PLOT DATE : 15-NOV-2013 15:28 PLOT BY : MSCAMG PLOT NAME : 021225_pd PLOT SCALE : 40:1

ORIGINAL PLANS PREPARED BY



7-30-13 (Date) (Signature)

2

FTMS STANDARD ABBREVIATIONS

CCTV — CLOSED CIRCUIT TELEVISION SITE
SDS — SYSTEM DETECTOR STATION
CB — CONTROLLER CABINET
PB — PULL BOX
MH — MANHOLE
CV — COMMUNICATIONS VAULT
MD — MICROWAVE DETECTOR
TMD — TEMPORARY MICROWAVE DETECTOR
PCCTV — PORTABLE CCTV VIDEO SURVEILLANCE SYSTEM

LEGEND

	EXISTING	PROPOSED
JUNCTION BOX		
CCTV CAMERA AND POLE		
FTMS CONTROL CABINET AND BASE		
POLE-MOUNT CABINET AND BREAKER		
DISCONNECT BOX		
METER BREAKER PEDESTAL		
24"X36" STEEL PULL BOX		
ANTENNA POLE		
MANHOLE		
MICROWAVE DETECTOR		
DETECTION ZONE		
LOOP DETECTOR		
ITS CONDUIT	—ITS—	
TEMPORARY MICROWAVE DETECTOR ASSEMBLY		
PORTABLE VIDEO SURVEILLANCE SYSTEM		
TYPE 1 COMMUNICATION VAULT		

FTMS GENERAL NOTES

THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.

BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULLBOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.

NO TREES (AND/OR SHRUBS) ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION ARE TO BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER AND SEED, AND MULCH. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION WILL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS. NO PAYMENT WILL BE MADE FOR RESTORING AREAS DISTURBED FOR FTMS CONSTRUCTION OPERATIONS.

THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

BE ADVISED THAT DUE TO RAMP, LANE, AND SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.

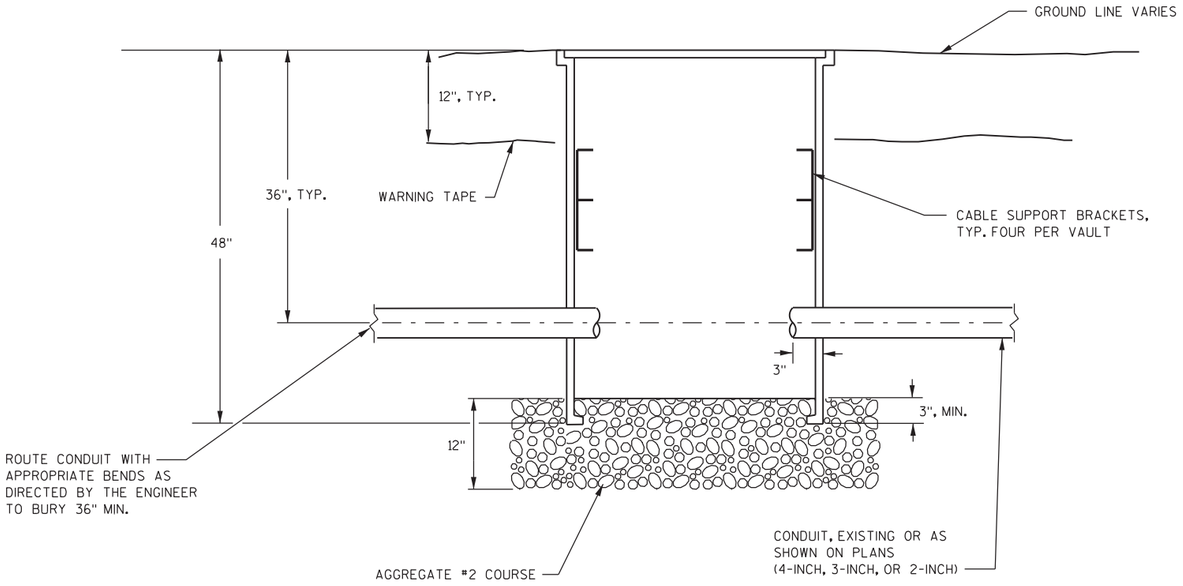
THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.

CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414) 227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.

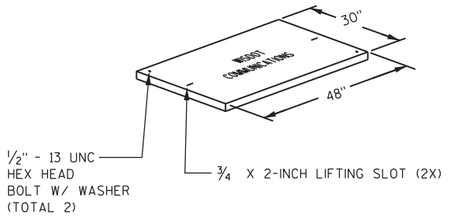
ALL LOOP DETECTORS STATIONED TO CENTER OF LEADING EDGE AS APPROACHED BY NORMAL VEHICLE PATH.

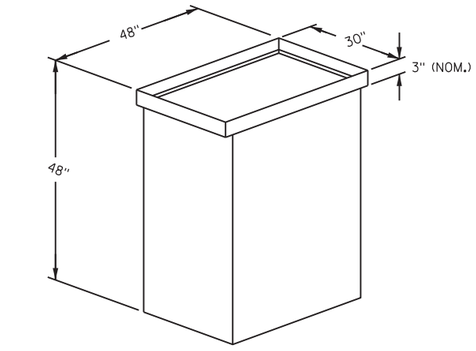
HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.

VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.

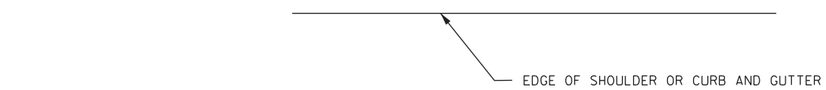


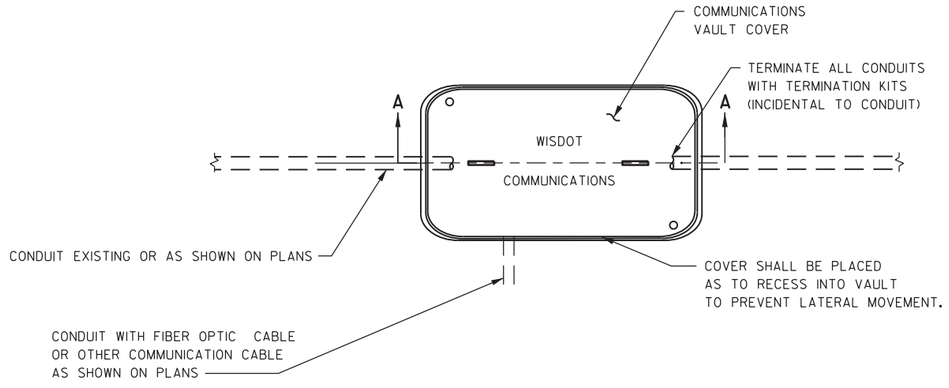
SECTION A-A





ISOMETRIC





COMMUNICATIONS VAULT, TYPE 1

PLAN VIEW

NOTES

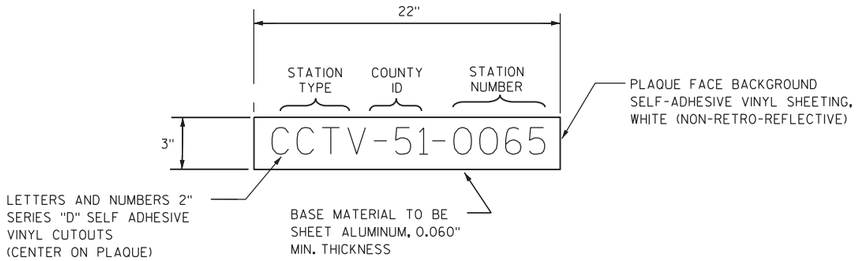
1) BOX SHALL HAVE AN OPEN BASE.

2) COVER SHALL HAVE A MINIMUM DESIGN LOAD OF 15,000 LBS AND SHALL LOCK.

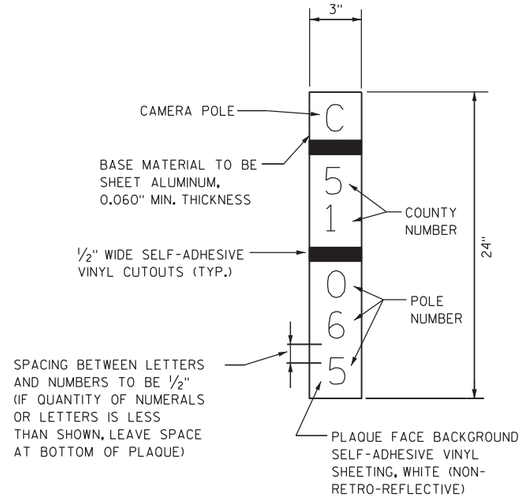
3) ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION, OR PUNCH DRIVEN AT TIME OF PLACEMENT.

4) VAULTS SHALL BE OF ONE-PIECE CONSTRUCTION. TWO-PIECE/STACKABLE VAULTS WILL NOT BE PERMITTED.

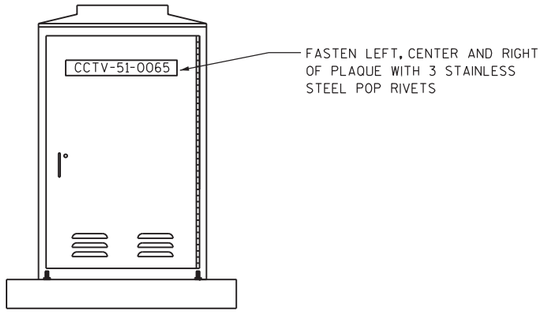
5) FIELD PLACEMENT OF COMMUNICATIONS VAULTS SHALL BE AS DIRECTED BY THE ENGINEER.



CONTROL CABINET IDENTIFICATION PLAQUE DETAIL



POLE IDENTIFICATION PLAQUE DETAIL



CONTROL CABINET IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS

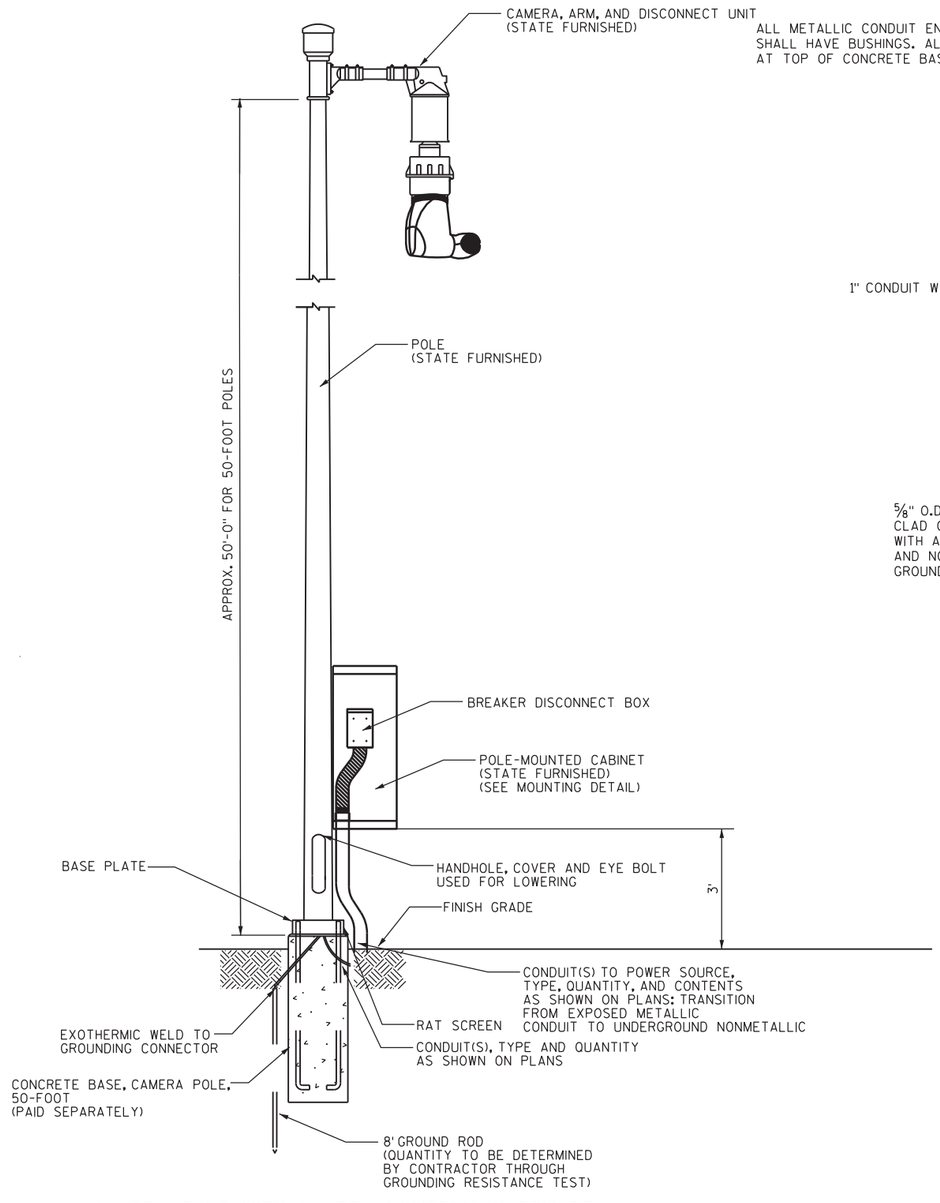
(TYPICAL ALL CONTROL CABINETS)

LEGEND STATION TYPE

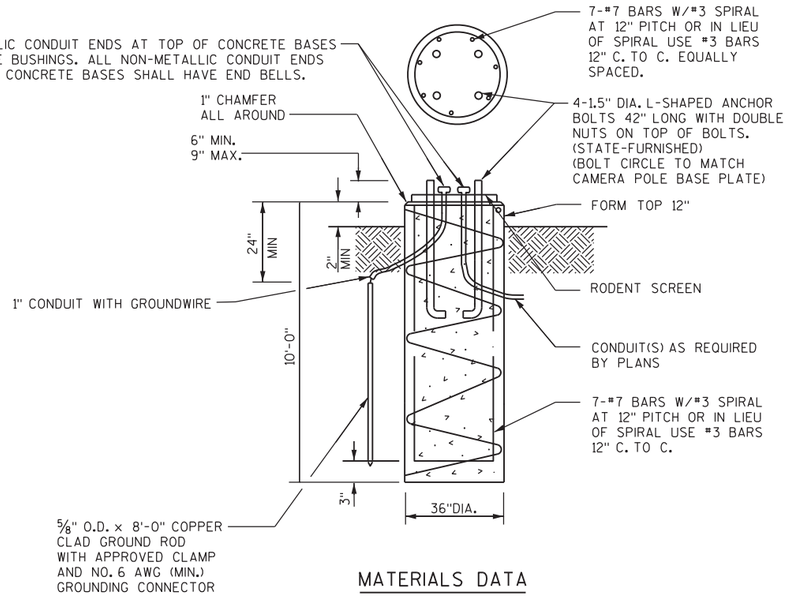
RM - RAMP METER
CCTV - CLOSED CIRCUIT TELEVISION
ATR - AUTOMATIC TRAFFIC RECORDER
SDS - SYSTEM DETECTOR STATION
MD - MICROWAVE DETECTOR

NOTES

1) TWO PLAQUES PER CABINET REQUIRED ON CONTROL CABINET.
2) FASTEN ONE PLAQUE ON FRONT DOOR, UPPER HALF.
3) FASTEN ONE PLAQUE ON SIDE FACING LOCAL STREET. IF NO LOCAL STREET NEARBY, OR IF SUCH LOCATION COINCIDES WITH LOCATION OF PLAQUE IN NOTE 2, FASTEN PLAQUE ON REAR OF CABINET, UPPER HALF.
4) COUNTY NUMBER NOT REQUIRED ON RAMP METER CABINETS.



CAMERA POLE WITH CAMERA LOWERING HARDWARE

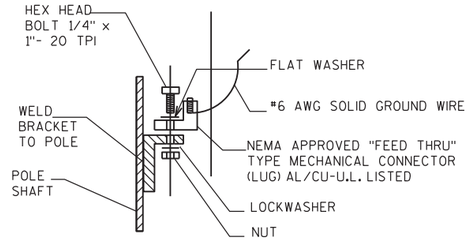


MATERIALS DATA

CONCRETE	f'c=3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 psi

CONCRETE BASE, 50' CAMERA POLE

NOT TO SCALE



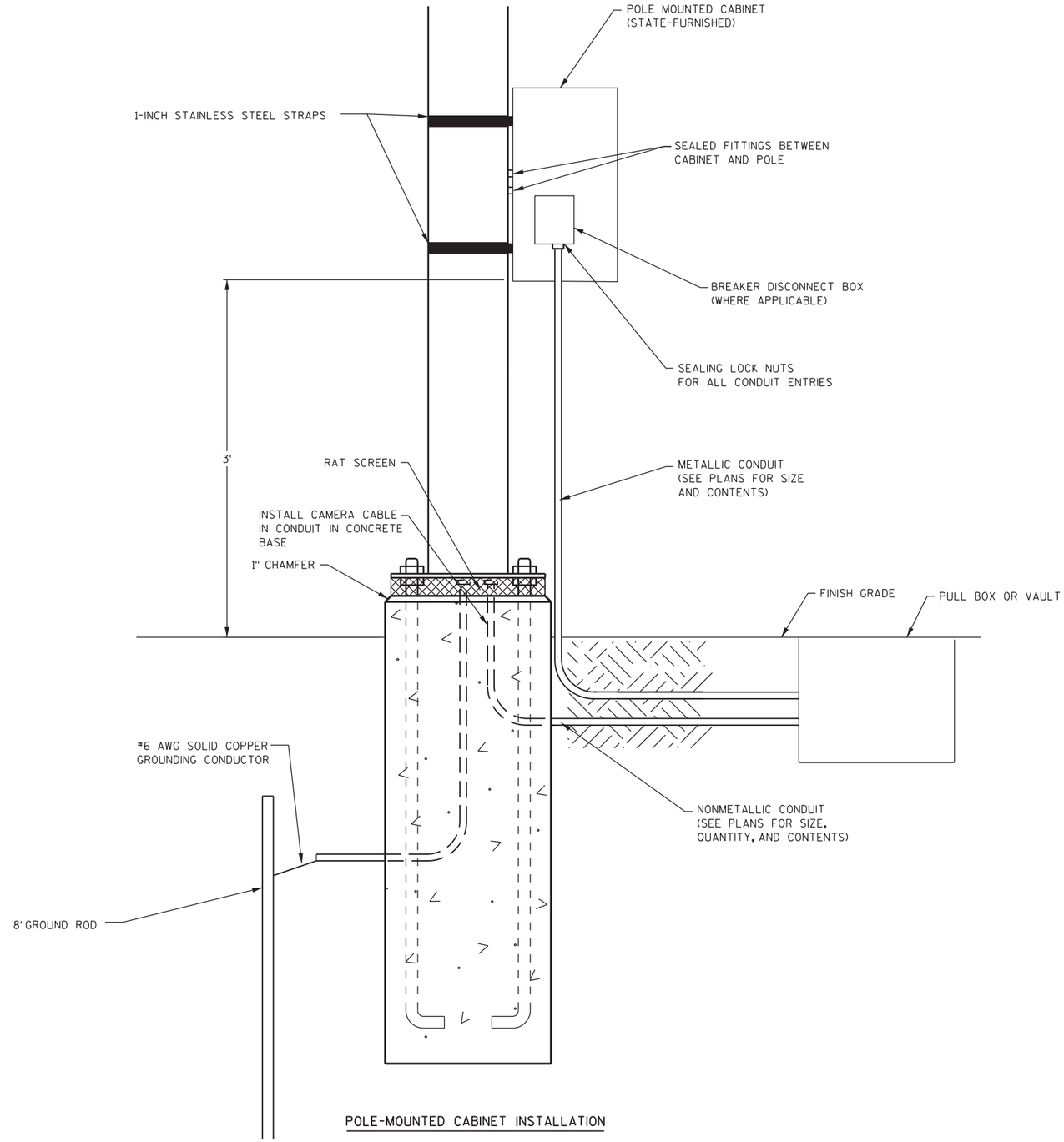
FIELD INSTALLED GROUNDING LUG

CAMERA POLES & FOUNDATIONS

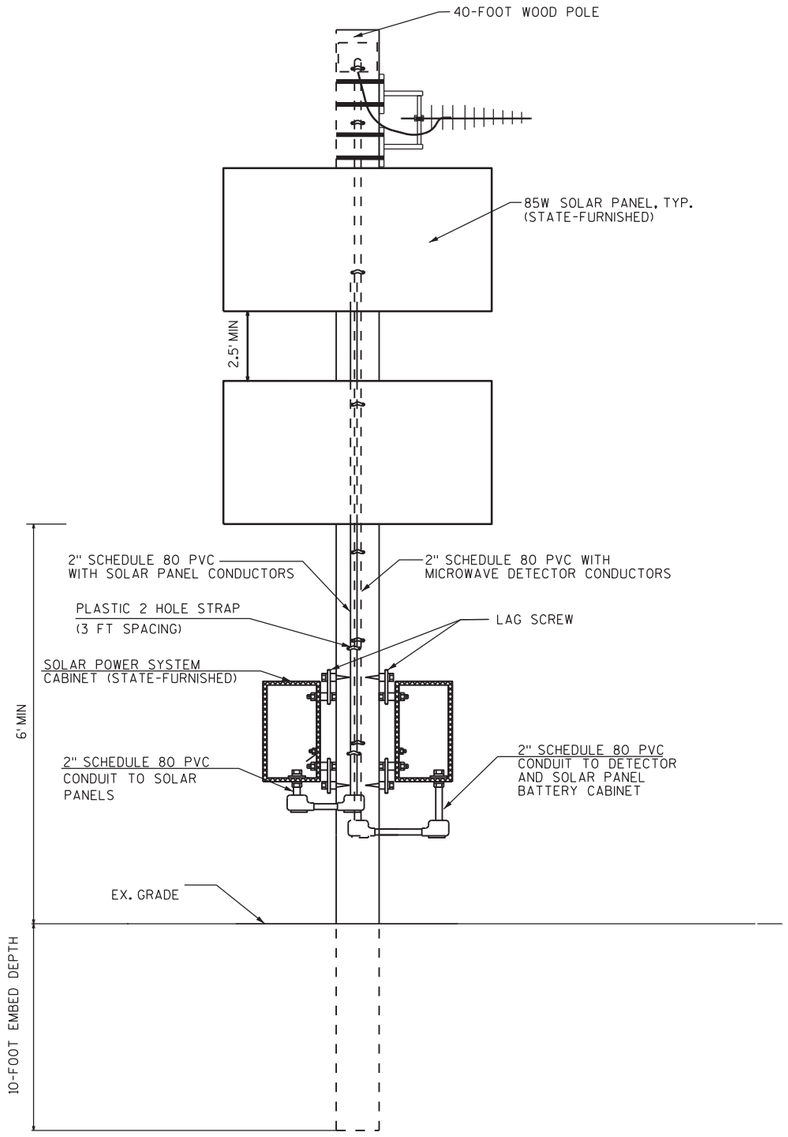
NOTES

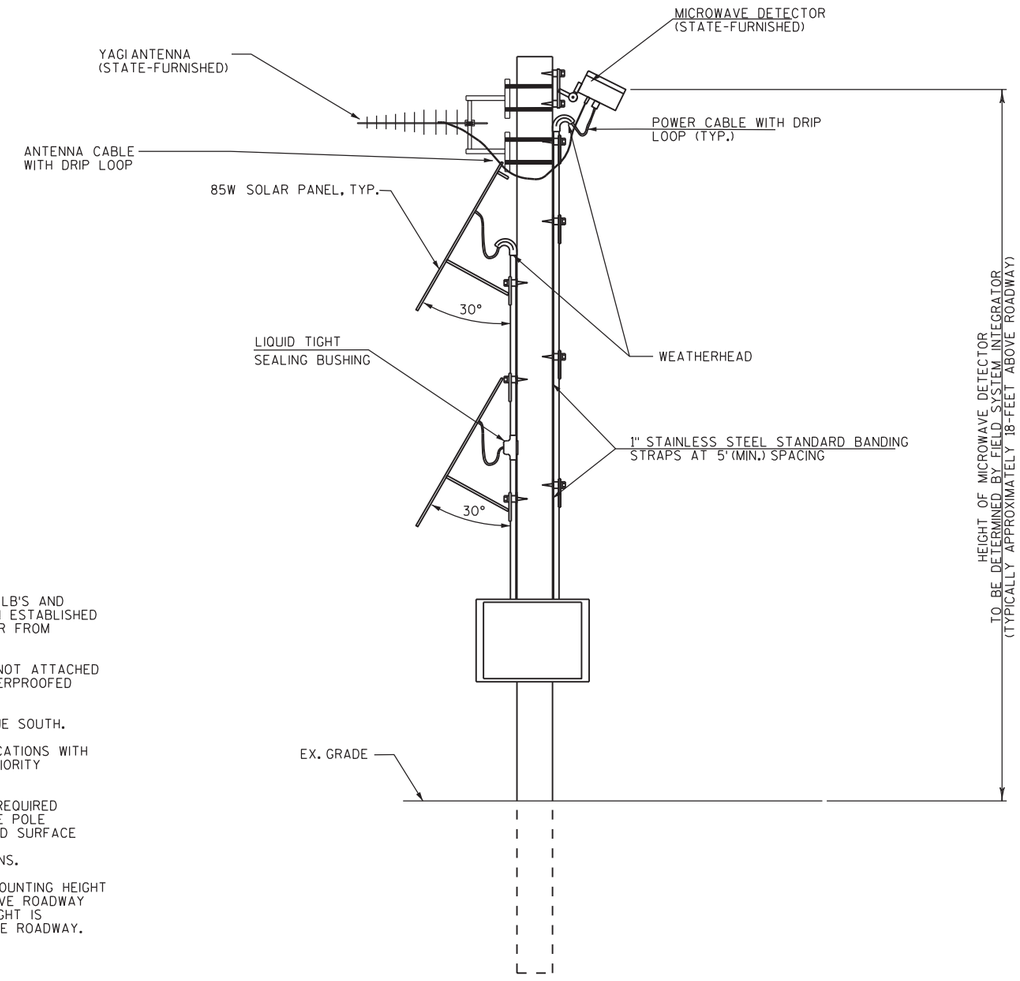
1) ALL HARDWARE AND FASTENERS SHALL BE STAINLESS STEEL
2) POLE DRAWINGS SHOWN FOR BIDDING INFORMATION PURPOSES ONLY. POLES WILL BE STATE FURNISHED. BASE TO BE CONTRACTOR DESIGNED.
3) CONTRACTOR SHALL CONFIRM BOLT PATTERN OF CAMERA POLE PRIOR TO CONSTRUCTION OF CONCRETE BASE.
4) CONTRACTOR SHALL INSTALL GROUNDING LUG AS SHOWN

2



POLE-MOUNTED CABINET INSTALLATION





NOTES:

1. ALL WIRES ENTERING CONDUIT, LB'S AND SERVICE CAPS SHALL HAVE AN ESTABLISHED DRIP LOOP TO PREVENT WATER FROM ENTERING CONDUIT.
2. ANY LB OPENINGS THAT ARE NOT ATTACHED TO CONDUIT SHALL BE WEATHERPROOFED USING A SILICONE SEAL.
3. SOLAR PANELS MUST FACE DUE SOUTH.
4. COORDINATE SOLAR PANEL LOCATIONS WITH VEHICLE DETECTORS, GIVING PRIORITY TO VEHICLE DETECTORS.
5. CONTRACTOR SHALL PROVIDE REQUIRED SETTING DEPTH AND ADEQUATE POLE HEIGHT ABOVE MONITORED ROAD SURFACE TO MEET VEHICLE DETECTOR MANUFACTURER'S SPECIFICATIONS.
6. CONTRACTOR TO DETERMINE MOUNTING HEIGHT OF MICROWAVE DETECTOR ABOVE ROADWAY BEING DETECTED. NOMINAL HEIGHT IS APPROXIMATELY 18-FEET ABOVE ROADWAY.

INSTALLING TEMPORARY VEHICLE DETECTOR ASSEMBLY

2

2

I 94/USH 41

MATCHLINE 857+00

I 94/USH 41

REMOVE PULL BOX

EXPB8551

REMOVE CABLE AND ABANDON CONDUIT

PROJECT NO:1033-02-72	HWY:I-94 / HWY 20	COUNTY:RACINE	FTMS REMOVAL PLAN	SHEET E

FILE NAME : \\mlww400\ingrproj\59271\10330272_STH_20\cds\20_FM_REM_cds02.dgn PLOT DATE : 7/30/2013 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1

2

2

N

I 94/USH 41

I 94/USH 41

MATCHLINE 857+00

MATCHLINE 872+00

858SW

860SW

862SW

866NW

868NW

870NW

858SE

860SE

862NE

864NE

866NE

868NE

870NE

290

292

294

296

298

REMOVE CABLE AND ABANDON CONDUIT

REMOVE PULL BOX

REMOVE ITS FIELD CABINET AND CONCRETE BASE

REMOVE PULL BOX NW

EXPB8591

EXPB8621

EXJB8621

EXPB8633

EXPB8632

EXJB8642

EXPB8642

EXPB8654

EXPB8655

EXPB8691

EXISTING CABLE AND CONDUIT IS IN BRIDGE PARAPET

EXJB8612

EXPB8612

EXPB8581

EXPB8611

EXJB8631

EXPB8631

EXMB8641

EX-CB-SDS-51-0092

EX-CCTV-51-0065

EXPB8652

EXPB8651

EXPB8641

EXPB8621

REMOVE EXISTING METER BREAKER PEDESTAL

REMOVE ITS FIELD CABINET AND CONCRETE BASE

EXPB8653

STH 20 / WASHINGTON AVE.

FILLER CAPS

FLAG

FOUND

PROJECT NO: 1033-02-72	HWY: I-94 / HWY 20	COUNTY: RACINE	FTMS REMOVAL PLAN	SHEET 77	E

2

REMOVE CABLE AND ABANDON CONDUIT

EXPB8731

REMOVE PULL BOX

I 94/USH 41

I 94/USH 41

MATCHLINE 872+00

PROJECT NO:1033-02-72	HWY:I-94 / HWY 20	COUNTY:RACINE	FTMS REMOVAL PLAN	SHEET 78 E

FILE NAME : \\mlww400\ingrproj\59271\10330272_STH_20\cds\20_FM_REM_cds04.dgn PLOT DATE : 7/30/2013 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1

2

2

N

I 94/USH 41

I 94/USH 41

MATCHLINE 842+00

F0 F0 F0 F0 F0 F0

INL

SIGN

WALLS

W

TMD8271

PCCTV8271

CV8291

DEPLOY PORTABLE VIDEO SURVEILLANCE SYSTEM WITH ETHERNET RADIO CONNECTED TO CCTV-51-0064 AT 4 MILE RD.

INSTALL TEMPORARY MICROWAVE DETECTOR SYSTEM WITH RADIO CONNECTION TO CCTV-51-0064 AT 4 MILE RD.

(3) 2-INCH HDPE DUCTS (FOR FUTURE USE)

PROJECT NO:1033-02-72	HWY:I-94 / HWY 20	COUNTY:RACINE	FTMS PLAN	SHEET	E

FILE NAME : \\mlww400\ingrproj\59271\10330272_STH_20\cds\20_FM_cds01.dgn PLOT DATE : 7/30/2013 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1

2

2

N

(1) TYPE 5 CONCRETE BASE
(1) 11 & 1/2-INCH TRANSFORMER BASE
(1) TYPE 5 POLE
(2) MICROWAVE DETECTORS (S-F)

(2) 2-INCH CONDUITS
(1) WITH (2) MD CABLES

(2) 2-INCH CONDUITS
(1) WITH (2) MD CABLES

(3) 2-INCH HDPE DUCTS
(FOR FUTURE USE)

I 94/USH 41

I 94/USH 41

MATCHLINE 842+00

MATCHLINE 857+00

PB8491
DP8491
CV8481
PB8521
PB8561

FILLER CAPS

INL
SIGN
FO
TV
W
MH

PROJECT NO:1033-02-72	HWY:I-94 / HWY 20	COUNTY:RACINE	FTMS PLAN	SHEET 80	E

FILE NAME : \\mlww400\ingrproj\59271\10330272_STH_20\cds\20_FM_cds02.dgn PLOT DATE : 7/30/2013 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

EXCAVATE EXISTING WISDOT COMMUNICATIONS VAULT IN AT&T SYSTEM.
(1) INSTALL PROPOSED CONDUIT INTO EXISTING COMMUNICATIONS VAULT AND PLACE NEW VAULT ON TOP OF EXISTING VAULT TO BRING TO EXISTING GRADE
(6) F.O. SPLICES IN EXISTING SPLICE ENCLOSURE (DO NOT DISTURB EXISTING SPLICES IN SPLICE ENCLOSURE)

(3) 2-INCH HDPE DUCTS, DIRECTIONAL BORE
(1) WITH (1) 6-COUNT FOC (S-F)

N

STH 20 / WASHINGTON AVE.

864NW+80.123
-71.82 LT

EXCV8651

(2) 2-INCH CONDUITS
(1) WITH (2) MD CABLES

CCTV-51-0065
(1) 50-FOOT CAMERA POLE CONCRETE BASE
(1) 50-FOOT CAMERA POLE (S-F)
(1) CCTV CAMERA (S-F)
(1) POLE-MOUNT CABINET (S-F)
(1) 12-COUNT F.O. TERMINATION PANEL (S-F)
(1) ETHERNET SWITCH / TERMINAL SERVER (S-F)
(1) ETHERNET VIDEO ENCODER (S-F)
(1) BREAKER DISCONNECT BOX

(1) 2-INCH METALLIC CONDUIT WITH
(3) NO. 6 AWG LIGHTING WIRES

(1) 2-INCH CONDUIT WITH
(3) NO. 6 AWG LIGHTING WIRES

I 94/USH 41

(3) 2-INCH CONDUITS
(1) WITH (4) MD CABLES
(1) WITH (1) 6-COUNT FOC (S-F)

(3) 2-INCH CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F)
(1) WITH (2) MD CABLES

MATCHLINE 857+00

MATCHLINE 872+00

PB8571
PB8621
PB8643
PB8641
PB8642
PB8671
PB8701

(3) 2-INCH CONDUITS
(1) WITH (2) MD CABLES
(1) WITH (1) 6-COUNT FOC (S-F)

(3) 2-INCH CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F)
(1) WITH (2) MD CABLES

(2) 2-INCH CONDUITS, SPECIAL
(1) WITH (2) MD CABLES

CONDUIT MUST BE A MINIMUM OF 6-FEET BELOW TOP OF EXISTING PAVEMENT

866NE+99.255
22.31 RT

CV8661

(3) 2-INCH HDPE DUCTS
(FOR FUTURE USE)

PROJECT NO: 1033-02-72	HWY: I-94 / HWY 20	COUNTY: RACINE	FTMS PLAN	SHEET 81	E

FILE NAME : \\mlww400\ingrproj\59271\10330272_STH_20\cds\20_FM_cds03.dgn PLOT DATE : 7/30/2013 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1

2

2

N

(3) 2-INCH HDPE DUCTS, DIRECTIONAL BORE
(1) WITH (1) 6-COUNT FOC (S-F)

CV8781

(3) 2-INCH HDPE DUCTS, DIRECTIONAL BORE
(1) WITH (1) 6-COUNT FOC (S-F)

(3) 2-INCH CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F)

I 94/USH 41

(2) 2-INCH CONDUITS
(1) WITH (2) MD CABLES

MATCHLINE 872+00

MATCHLINE 887+00

(3) 2-INCH CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F)
(1) WITH (2) MD CABLES

(3) 2-INCH CONDUITS
(1) WITH (1) 6-COUNT FOC (S-F)
(1) WITH (2) MD CABLES

I 94/USH 41

PB8731

PB8761

PB8771

DP8771

CV8771

(3) 2-INCH HDPE DUCTS
(FOR FUTURE USE)

(3) 2-INCH HDPE DUCTS.
(FOR FUTURE USE)

DP8771
(1) TYPE 5 CONCRETE BASE
(1) 11-1/2-INCH TRANSFORMER BASE
(1) ALUMINUM TYPE 5 POLE
(2) MICROWAVE DETECTORS

(3) 2-INCH HDPE DUCTS
(FOR FUTURE USE)

PROJECT NO:1033-02-72	HWY:I-94 / HWY 20	COUNTY:RACINE	FTMS PLAN	SHEET 82	E

FILE NAME : \\mlww400\ingrproj\59271\10330272_STH_20\cds\20_FM_cds04.dgn PLOT DATE : 7/30/2013 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

MATCHLINE 887+00

I 94/USH 41

I 94/USH 41

C T H "C" / SPRING ST

(3) 2-INCH HDPE DUCTS
(FOR FUTURE USE)

CV8911

CV8921

CV8951

TMD9011

PCCTV9021

INSTALL TEMPORARY MICROWAVE DETECTOR SYSTEM WITH RADIO CONNECTION TO CCTV-51-0064 AT 4 MILE RD.

DEPLOY PORTABLE VIDEO SURVEILLANCE SYSTEM WITH ETHERNET RADIO CONNECTED TO CCTV-51-0064 AT 4 MILE RD.

N

PROJECT NO: 1033-02-72	HWY: I-94 / HWY 20	COUNTY: KENOSHA	FTMS PLAN	SHEET 83	E

2

2

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- WORK ZONE
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- MEDIUM RIP RAP

N

IH 94 SB

IH 94 NB

MATCHLINE 825+00

WETLAND BOUNDARY (TYP.)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 1	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022101_ec.dgn PLOT DATE : 06-NOV-2013 14:27 PLOT BY : MSCAMG PLOT NAME : 022101_ec PLOT SCALE : 100:1

2

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- WORK ZONE
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- MEDIUM RIP RAP

N

WEST FRONTAGE ROAD

IH 94 SB

IH 94 NB

EAST FRONTAGE ROAD

MATCHLINE 825+00

MATCHLINE 840+00

826 828 830 832 834 836 838 838SE 840

WETLAND BOUNDARY (TYP.)

SIGN INL WALLS W

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 1	SHEET E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022102_ec.dgn PLOT DATE : 06-NOV-2013 14:27 PLOT BY : MSCAMG PLOT NAME : 022102_ec PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- WORK ZONE
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- MEDIUM RIP RAP

N

WEST FRONTAGE ROAD

IH 94 SB

IH 94 NB

RAMP SW

RAMP SE

MATCHLINE 840+00

MATCHLINE 855+00

842SW 844SW 846SW 848SW 850SW 852SW 854SW

842 844 846 848 850 852 854

842SE 844SE 846SE 848SE 850SE 852SE 854SE

B

SIGN

INL

WETLAND BOUNDARY (TYP.)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 1	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022103_ec.dgn PLOT DATE : 06-NOV-2013 14:28 PLOT BY : MSCAMG PLOT NAME : 022103_ec PLOT SCALE : 100:1

2

N

RAMP SW
856SW
858SW
860SW
862SW

RAMP NW
864NW
866NW
868NW

RAMP SE
856SE
858SE
860SE

RAMP NE
862NE
864NE
866NE
868NE

STH 20
290
292
294
296
298

IH 94 SB
IH 94 NB
856
858
860
862
864
866
868

MATCHLINE 855+00

MATCHLINE 870+00

FILLER CAPS

SIGN

INL

MH

W

B

U/C

HWY

EROSION CONTROL LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION TYPE A
EROSION MAT CLASS II, TYPE C	INLET PROTECTION TYPE B
SILT FENCE	INLET PROTECTION TYPE C
EROSION BALES	INLET PROTECTION TYPE D
SURFACE WATER FLOW	TEMPORARY DITCH CHECK
SLOPE INTERCEPT	CULVERT PIPE CHECK
WORK ZONE	MEDIUM RIP RAP

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 1	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022104_ec.dgn PLOT DATE : 06-NOV-2013 14:29 PLOT BY : MSCAMG PLOT NAME : 022104_ec PLOT SCALE : 100:1

2

WEST FRONTAGE ROAD

RAMP NW

RAMP NE

EAST FRONTAGE ROAD

IH 94 SB

IH 94 NB

MATCHLINE 870+00

MATCHLINE 885+00

70NW 872NW 874NW 876NW 878NW 880NW 882NW 884NW

70 872 874 876 878 880 882 884

70NE 872NE 874NE 876NE 878NE 880NE 882NE 884NE

WETLAND BOUNDARY (TYP.)

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- WORK ZONE
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- MEDIUM RIP RAP

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 1	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022105_ec.dgn PLOT DATE : 06-NOV-2013 14:29 PLOT BY : MSCAMG PLOT NAME : 022105_ec PLOT SCALE : 100:1

2

2

WEST FRONTAGE ROAD

EAST FRONTAGE ROAD

WETLAND BOUNDARY (TYP.)

CTH C

IH 94 SB

IH 94 NB

886NW

886NE

MATCHLINE 885+00

MATCHLINE 900+00

886 888 890 892 894 896 898

64 66 68 70 72

INL SS W SIGN MH

N

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- WORK ZONE
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- MEDIUM RIP RAP

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 1	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022106_ec.dgn PLOT DATE : 06-NOV-2013 14:30 PLOT BY : MSCAMG PLOT NAME : 022106_ec PLOT SCALE : 100:1

2

N

MATCHLINE 900+00

902 904 906 908 910 912 914

IH 94 SB

IH 94 NB

SIGN

SIGN

SIGN

WETLAND BOUNDARY (TYP.)

EROSION CONTROL LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION TYPE A
EROSION MAT CLASS II, TYPE C	INLET PROTECTION TYPE B
SILT FENCE	INLET PROTECTION TYPE C
EROSION BALES	INLET PROTECTION TYPE D
SURFACE WATER FLOW	TEMPORARY DITCH CHECK
SLOPE INTERCEPT	CULVERT PIPE CHECK
WORK ZONE	MEDIUM RIP RAP

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 1	SHEET	E

2

2

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- MEDIUM RIP RAP

N

SIGN

IH 94 SB

810 812 814 816 818 820 822 824

INL INL INL W W

IH 94 NB

SIGN SIGN

MATCHLINE 825+00

INL MH

WETLAND BOUNDARY (TYP.)

PLACE SILT FENCE DRAINAGE OUTLET EROSION CONTROL FILTER BAGS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 2	SHEET	E

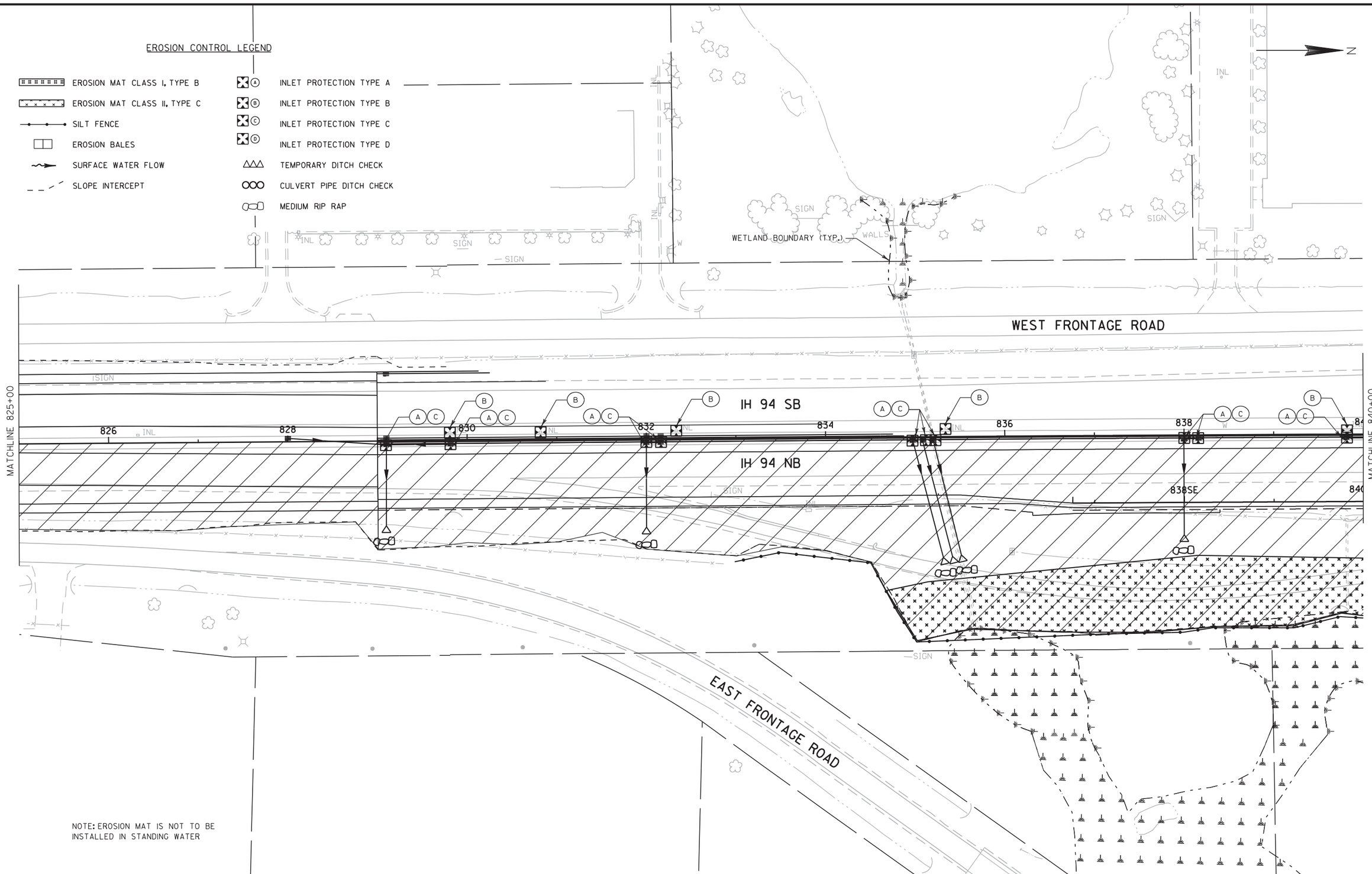
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WISDOT/CADDS SHEET 42

2

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- MEDIUM RIP RAP



NOTE: EROSION MAT IS NOT TO BE INSTALLED IN STANDING WATER

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 2	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022202_ec.dgn PLOT DATE : 01-AUG-2013 09:21 PLOT BY : MSCD1S PLOT NAME : 022202_ec PLOT SCALE : 100:1

2

EROSION CONTROL LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION TYPE A
EROSION MAT CLASS II, TYPE C	INLET PROTECTION TYPE B
SILT FENCE	INLET PROTECTION TYPE C
EROSION BALES	INLET PROTECTION TYPE D
SURFACE WATER FLOW	TEMPORARY DITCH CHECK
SLOPE INTERCEPT	CULVERT PIPE DITCH CHECK
	MEDIUM RIP RAP

WEST FRONTAGE ROAD

IH 94 SB

IH 94 NB

RAMP SW

RAMP SE

842SW 844SW 846SW 848SW 850SW 852SW 854SW

842SE 844SE 846SE 848SE 850SE 852SE 854SE

MATCHLINE 840+00

MATCHLINE 855+00

NOTE: EROSION MAT IS NOT TO BE INSTALLED IN STANDING WATER

WETLAND BOUNDARY (TYP.)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 2	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022203_ec.dgn PLOT DATE : 01-AUG-2013 09:21 PLOT BY : MSCD1S PLOT NAME : 022203_ec PLOT SCALE : 100:1

NOTE: EROSION MAT IS NOT TO BE INSTALLED IN STANDING WATER

N

IH 94 SB

IH 94 NB

STH 20

RAMP SW

RAMP SE

RAMP NW

RAMP NE

856SW 858SW 860SW 862SW

856SE 858SE 860SE 862NE 864NE 866NE 868NE

864NW 866NW 868NW

856 858 860 862 864 866 868

290 292 294 296 298

MATCHLINE 855+00

MATCHLINE 870+00

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- MEDIUM RIP RAP

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 2	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022204_ec.dgn PLOT DATE : 01-AUG-2013 09:21 PLOT BY : MSCD1S PLOT NAME : 022204_ec PLOT SCALE : 100:1

2

WEST FRONTAGE ROAD

NOTE: EROSION MAT IS NOT TO BE INSTALLED IN STANDING WATER

RAMP NW

872NW 874NW 876NW 878NW 880NW 882NW 884NW

IH 94 SB

IH 94 NB

872 874 876 878 880 882 884

872NE 874NE 876NE 878NE 880NE 882NE 884NE

RAMP NE

EAST FRONTAGE ROAD

WETLAND BOUNDARY (TYP.)

MATCHLINE 870+00

MATCHLINE 885+00

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- MEDIUM RIP RAP

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 2	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022205_ec.dgn PLOT DATE : 01-AUG-2013 09:21 PLOT BY : MSCD1S PLOT NAME : 022205_ec PLOT SCALE : 100:1

2

NOTE: EROSION MAT IS NOT TO BE INSTALLED IN STANDING WATER

N

WEST FRONTAGE ROAD

64

66

CTH C

IH 94 SB

IH 94 NB

68

70

72

886NW

886NE

886

888

890

892

894

896

898

900

MATCHLINE 885+00

MATCHLINE 900+00

WETLAND BOUNDARY (TYP.)

EAST FRONTAGE ROAD

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- MEDIUM RIP RAP

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 2	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022206_ec.dgn PLOT DATE : 01-AUG-2013 09:21 PLOT BY : MSCD1S PLOT NAME : 022206_ec PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

MH

SIGN

SIGN

MATCHLINE 900+00

900 902 904 906 908 910 912 914

INL INL INL W INL

IH 94 SB

IH 94 NB

SIGN

WETLAND BOUNDARY (TYP.)

EROSION CONTROL LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION TYPE A
EROSION MAT CLASS II, TYPE C	INLET PROTECTION TYPE B
SILT FENCE	INLET PROTECTION TYPE C
EROSION BALES	INLET PROTECTION TYPE D
SURFACE WATER FLOW	TEMPORARY DITCH CHECK
SLOPE INTERCEPT	CULVERT PIPE CHECK
	MEDIUM RIP RAP

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 2	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022207_ec.dgn PLOT DATE : 01-AUG-2013 09:22 PLOT BY : MSCD1S PLOT NAME : 022207_ec PLOT SCALE : 100:1

2

2

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- MEDIUM RIP RAP

N

SIGN

IH 94 SB

810 812 814 816 818 820 822 824

INL INL INL INL W W

N0°27'11"W

MATCHLINE 825+00

IH 94 NB

SIGN

SIGN

INL

INL

MH

WETLAND BOUNDARY (TYP.)

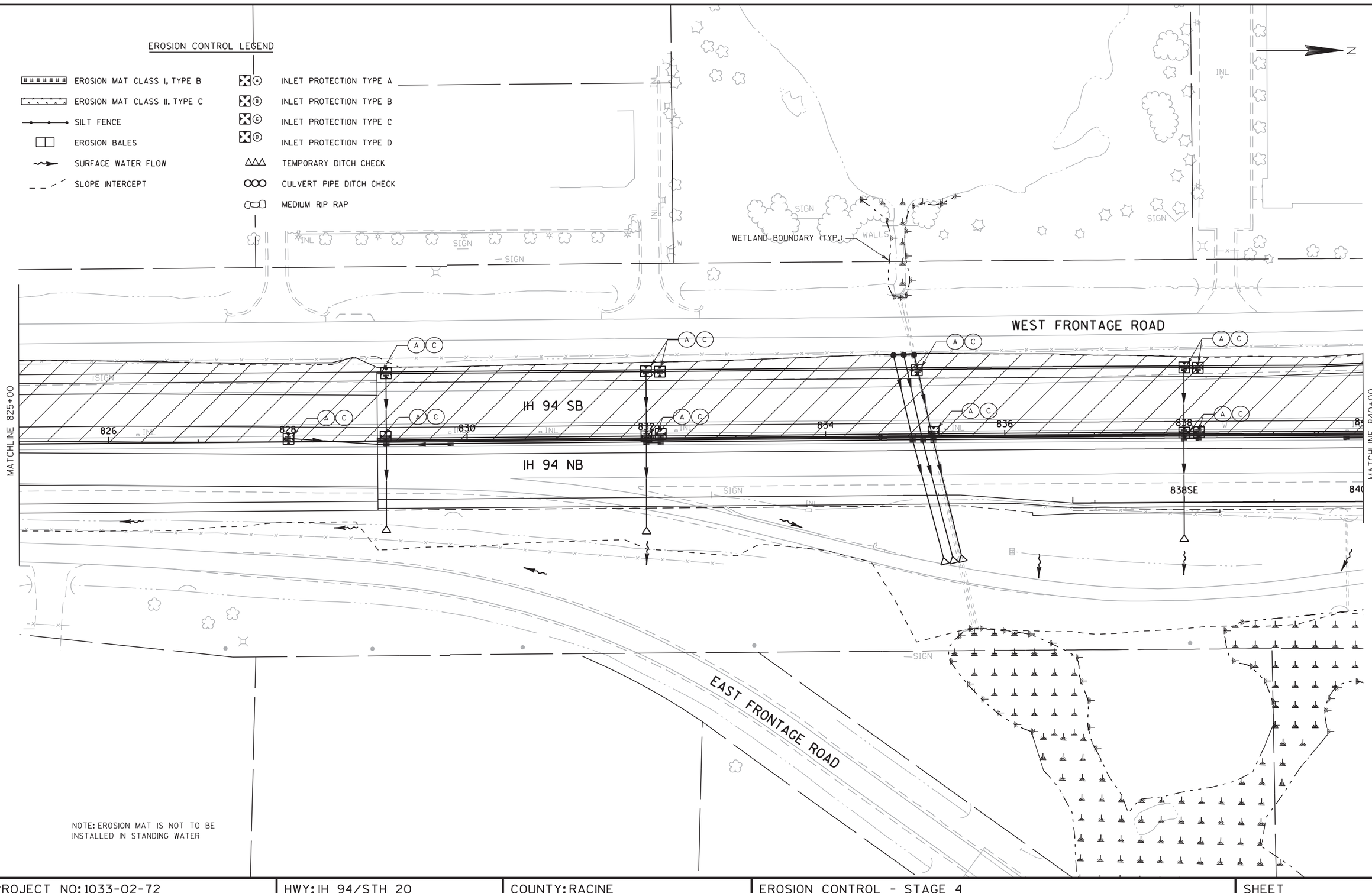
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 4	SHEET	E

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2

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- MEDIUM RIP RAP



NOTE: EROSION MAT IS NOT TO BE INSTALLED IN STANDING WATER

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 4	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022302_ec.dgn PLOT DATE : 01-AUG-2013 10:30 PLOT BY : MSCD1S PLOT NAME : 022302_ec PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

WEST FRONTAGE ROAD

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- MEDIUM RIP RAP

N

FILLER CAPS

MATCHLINE 840+00

MATCHLINE 855+00

842SW 844SW 846SW 848SW 850SW 852SW 854SW

RAMP SW

IH 94 SB

IH 94 NB

842 844 846 848 850 852 854

842SE 844SE 846SE 848SE 850SE 852SE 854SE

RAMP SE

N0°0'43"W

SIGN

NOTE: EROSION MAT IS NOT TO BE INSTALLED IN STANDING WATER

WETLAND BOUNDARY (TYP.)

INL

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 4	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022303_ec.dgn PLOT DATE : 01-AUG-2013 10:31 PLOT BY : MSCD1S PLOT NAME : 022303_ec PLOT SCALE : 100:1

NOTE: EROSION MAT IS NOT TO BE INSTALLED IN STANDING WATER

N

MATCHLINE 855+00

MATCHLINE 870+00

RAMP SW

RAMP SE

RAMP NW

RAMP NE

IH 94 SB

IH 94 NB

STH 20

856SW 858SW 860SW 862SW 864NW 866NW 868NW

856SE 858SE 860SE 862NE 864NE 866NE 868NE

856 858 860 862 864 866 868

290 292 294 296 298

FILLER CAPS

SIGN

INL

MH

HW

W

FLAG

U/C

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- MEDIUM RIP RAP

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 4	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022304_ec.dgn PLOT DATE : 01-AUG-2013 10:31 PLOT BY : MSCD1S PLOT NAME : 022304_ec PLOT SCALE : 100:1

2

WEST FRONTAGE ROAD

NOTE: EROSION MAT IS NOT TO BE INSTALLED IN STANDING WATER

RAMP NW

872NW 874NW 876NW 878NW 880NW 882NW 884NW

IH 94 SB

872 874 876 878 880 882 884

N0°13'51"E

IH 94 NB

872NE 874NE 876NE 878NE 880NE 882NE 884NE

RAMP NE

WETLAND BOUNDARY (TYP.)

EAST FRONTAGE ROAD

MATCHLINE 870+00

MATCHLINE 885+00

EROSION CONTROL LEGEND

EROSION MAT CLASS I, TYPE B	INLET PROTECTION TYPE A
EROSION MAT CLASS II, TYPE C	INLET PROTECTION TYPE B
SILT FENCE	INLET PROTECTION TYPE C
EROSION BALES	INLET PROTECTION TYPE D
SURFACE WATER FLOW	TEMPORARY DITCH CHECK
SLOPE INTERCEPT	CULVERT PIPE DITCH CHECK
	MEDIUM RIP RAP

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 4	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022305_ec.dgn PLOT DATE : 01-AUG-2013 10:32 PLOT BY : MSCD1S PLOT NAME : 022305_ec PLOT SCALE : 100:1

2

2

NOTE: EROSION MAT IS NOT TO BE INSTALLED IN STANDING WATER

N

WEST FRONTAGE ROAD

EAST FRONTAGE ROAD

IH 94 SB

IH 94 NB

CTH C

64

66

68

70

72

886NW

886NE

886

888

890

892

894

896

898

900

MATCHLINE 885+00

MATCHLINE 900+00

WETLAND BOUNDARY (TYP.)

INL

SS

W

SIGN

MH

A C

EROSION CONTROL LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE DITCH CHECK
- MEDIUM RIP RAP

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EROSION CONTROL - STAGE 4	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\022306_ec.dgn PLOT DATE : 01-AUG-2013 10:33 PLOT BY : MSCD1S PLOT NAME : 022306_ec PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

MATCHLINE 900+00

N0°38'52"W

902 904 906 908 910 912 914

INL INL INL W INL

IH 94 SB

IH 94 NB

SIGN SIGN SIGN

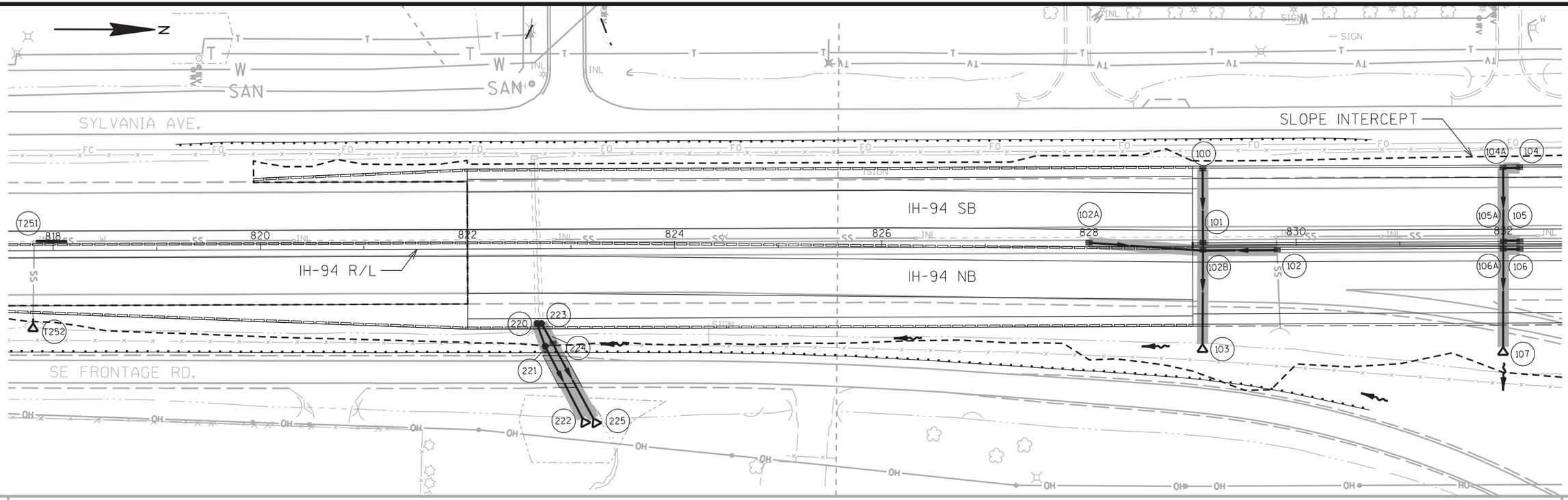
WETLAND BOUNDARY (TYP.)

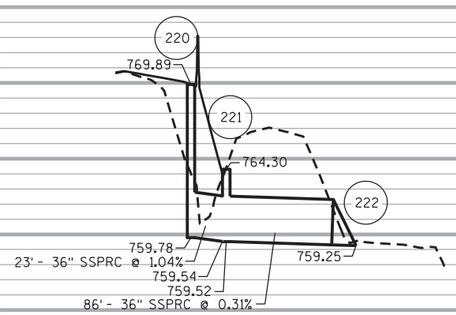
EROSION CONTROL LEGEND

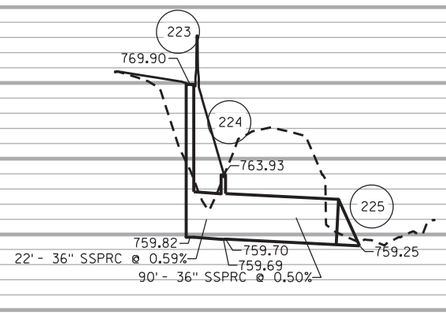
- EROSION MAT CLASS I, TYPE B
- EROSION MAT CLASS II, TYPE C
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- MEDIUM RIP RAP

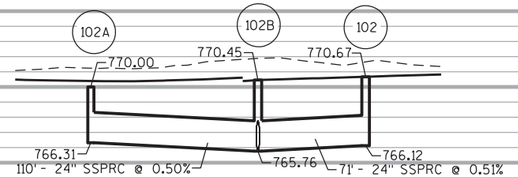
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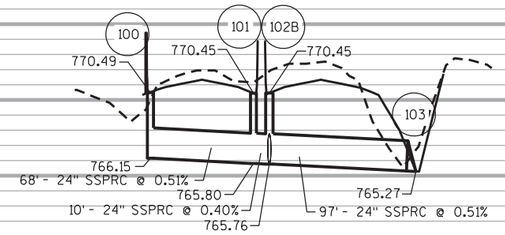
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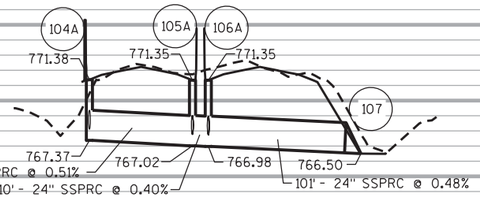


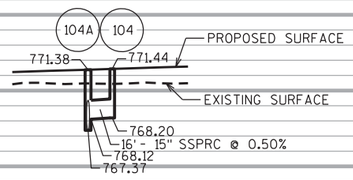


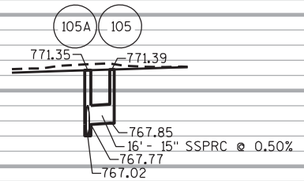


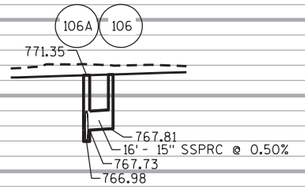






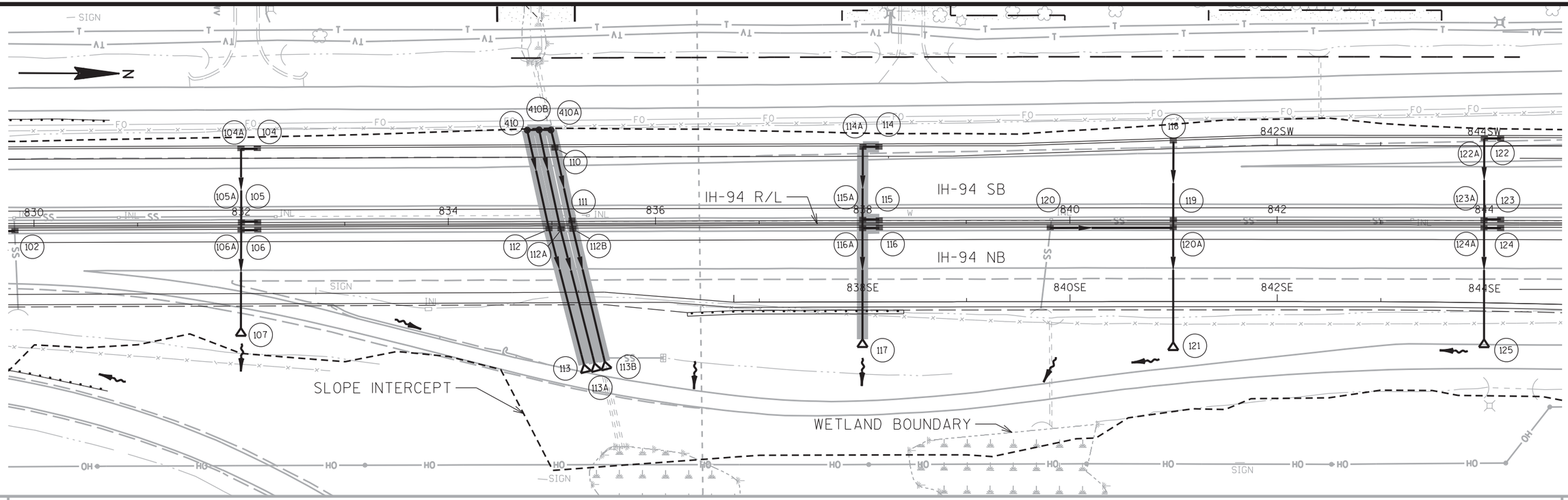


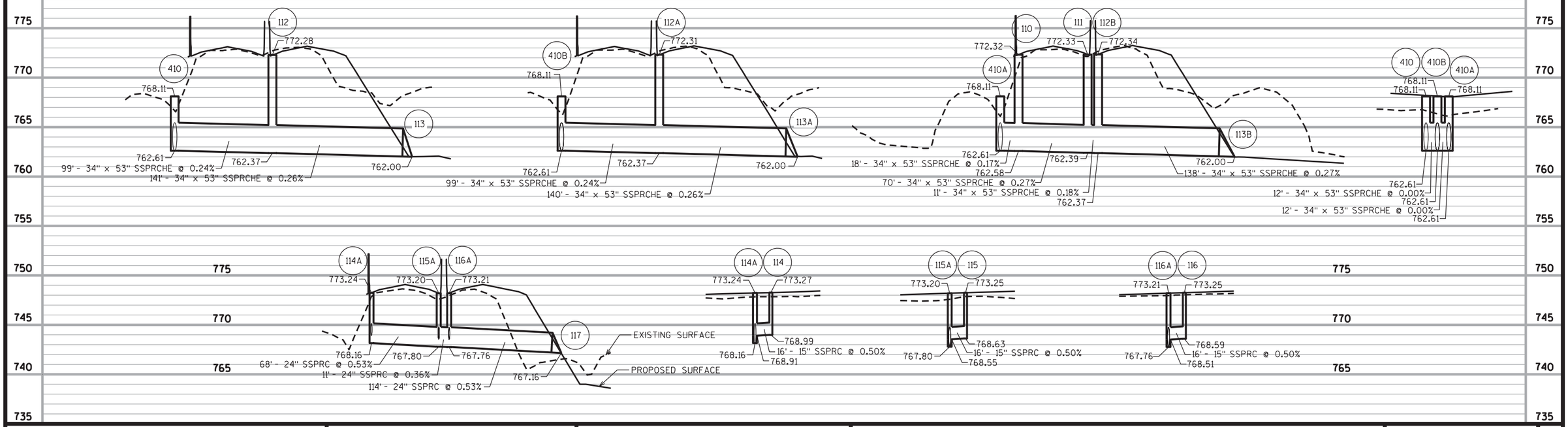




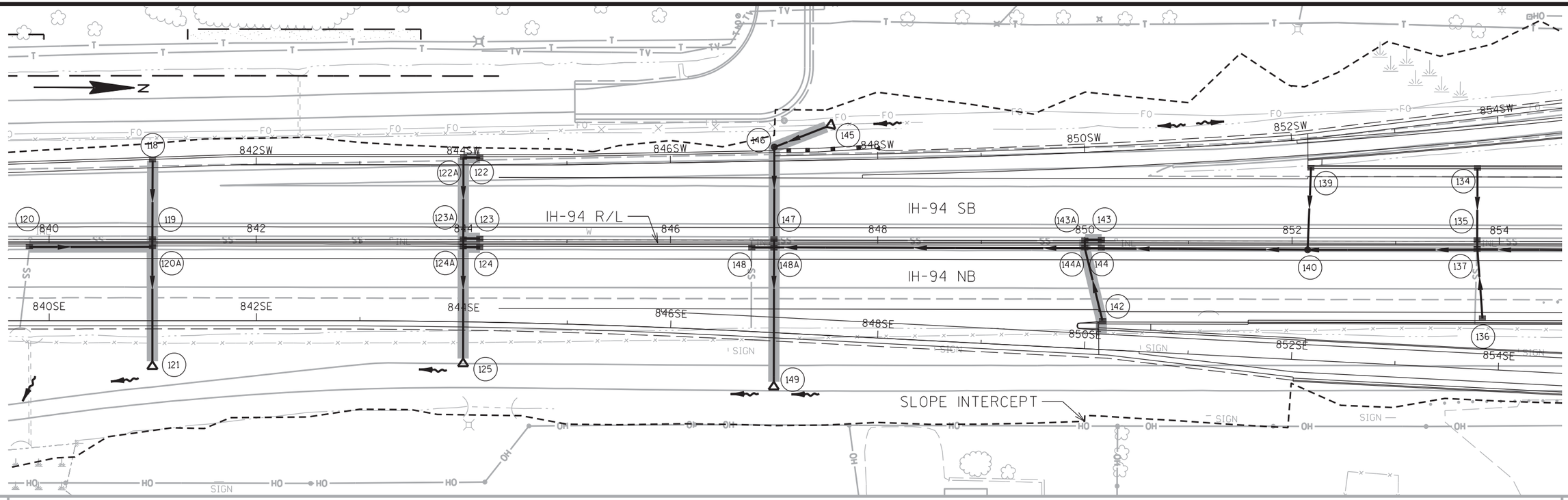
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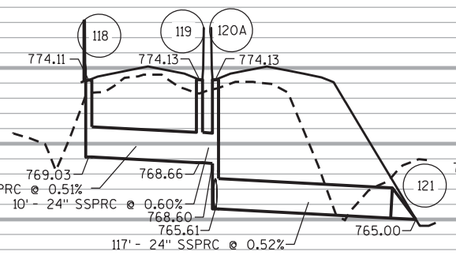
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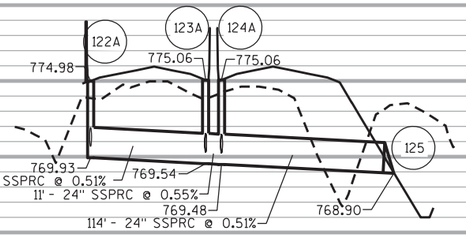


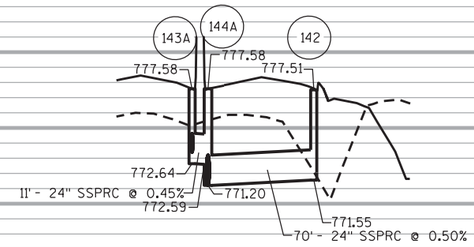


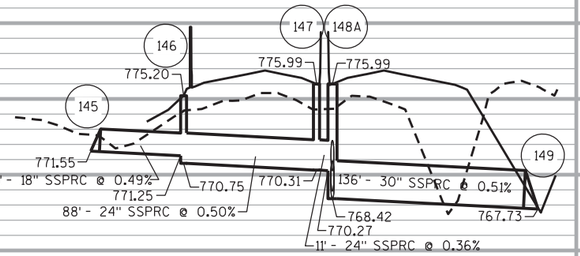
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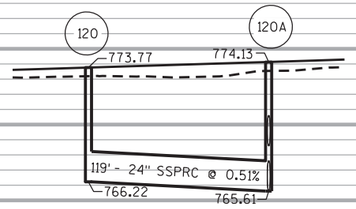


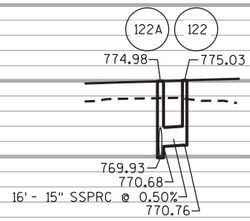


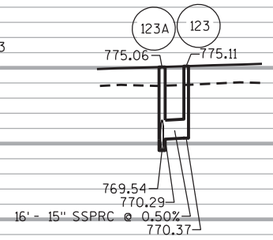


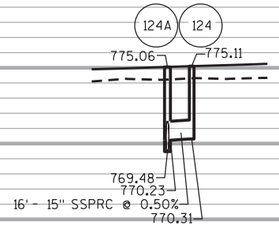


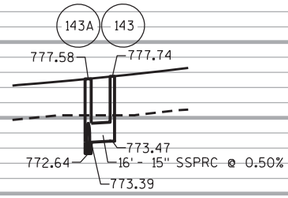




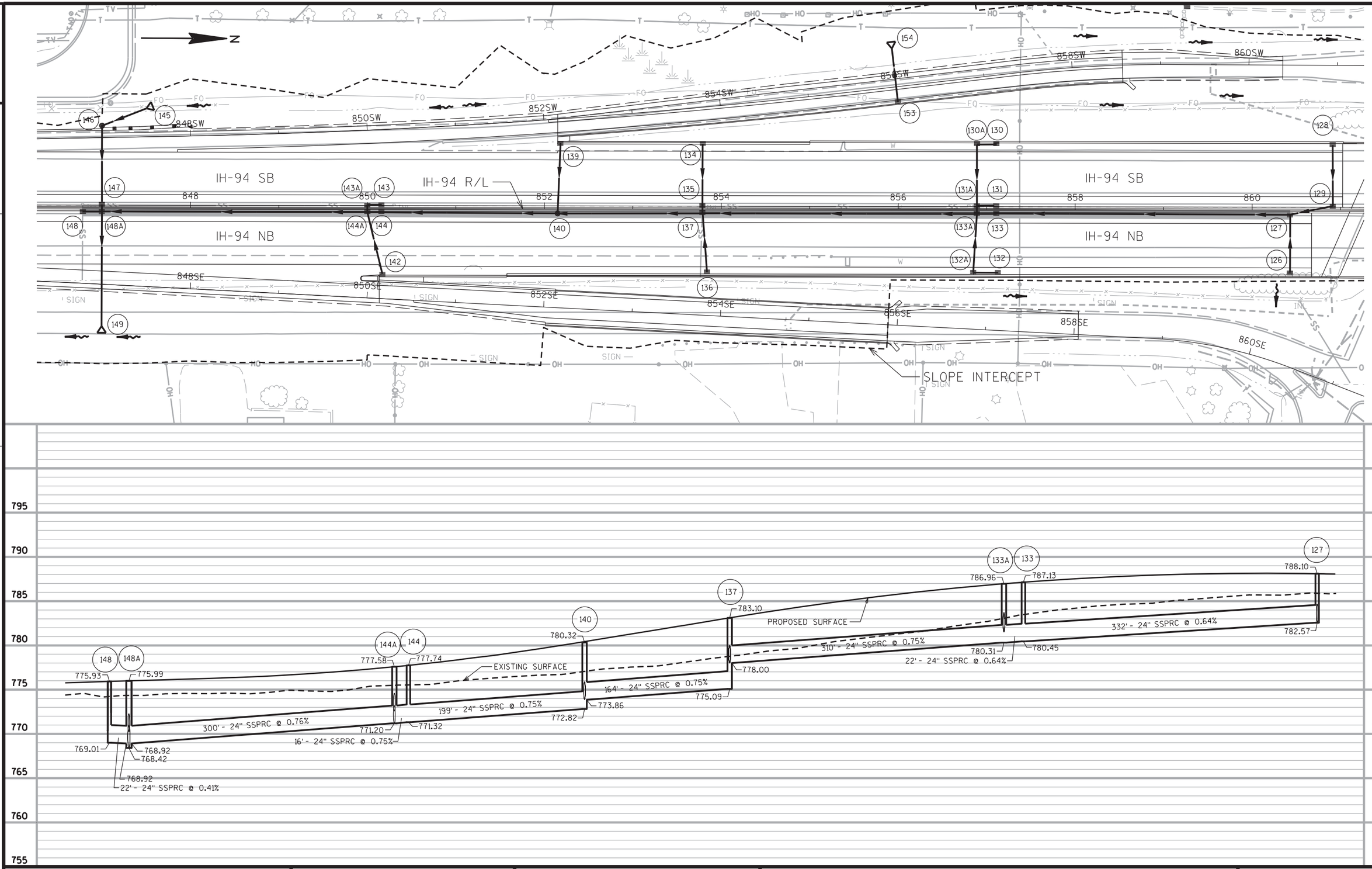






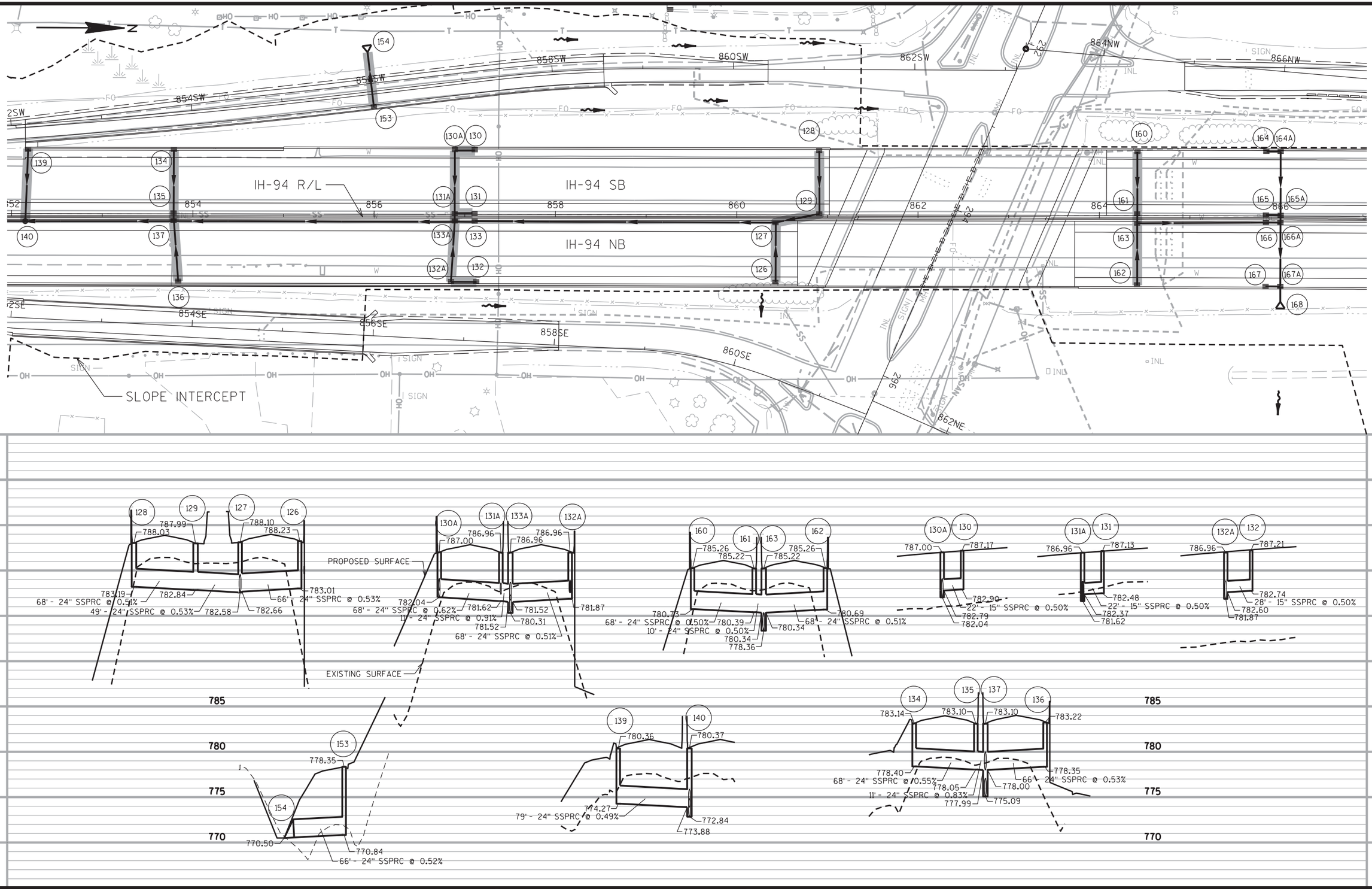


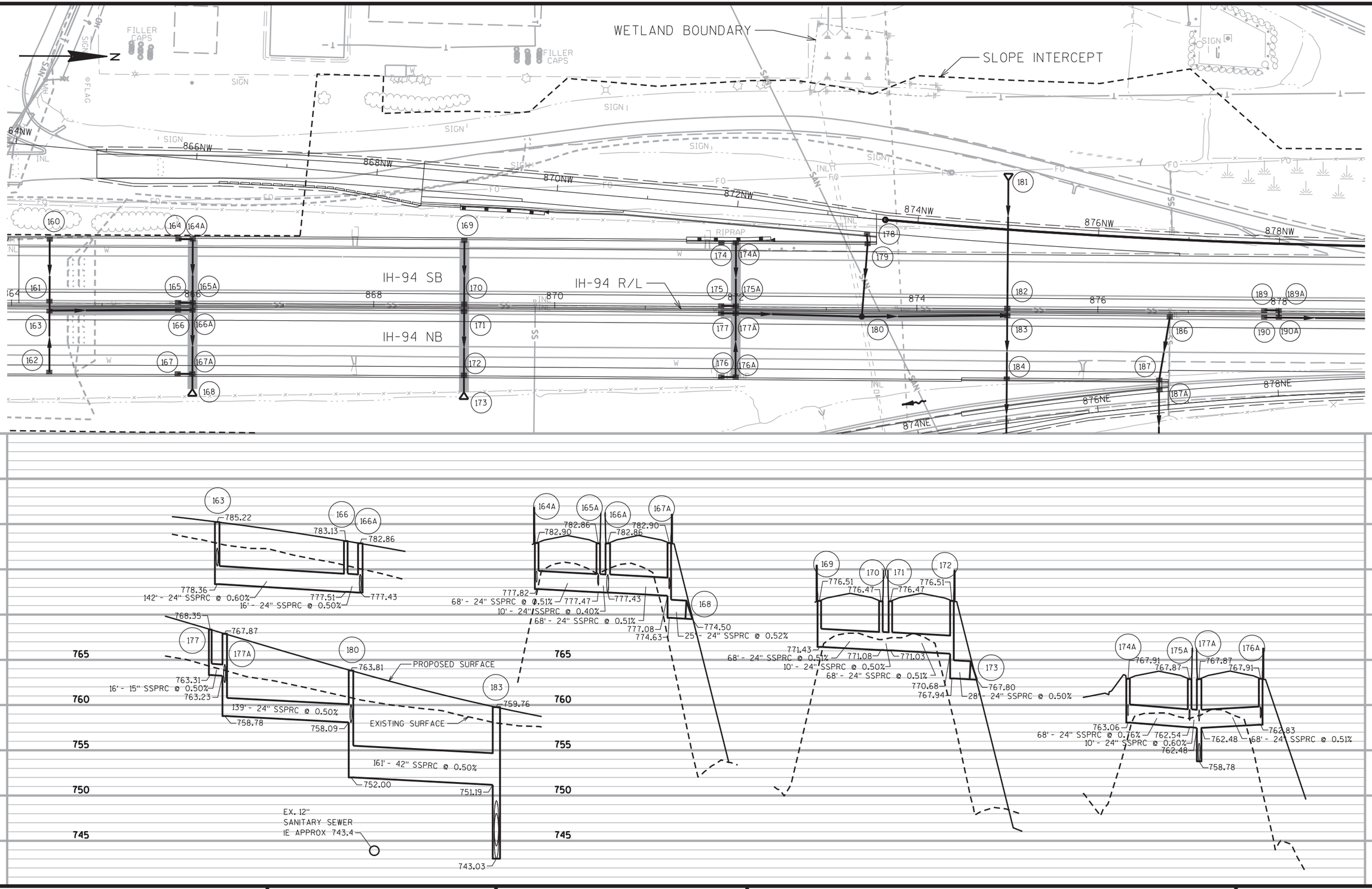
PROJECT NO: 1033-02-72	HWY: IH94/STH20	COUNTY: RACINE	STORM SEWER	SHEET 107 E



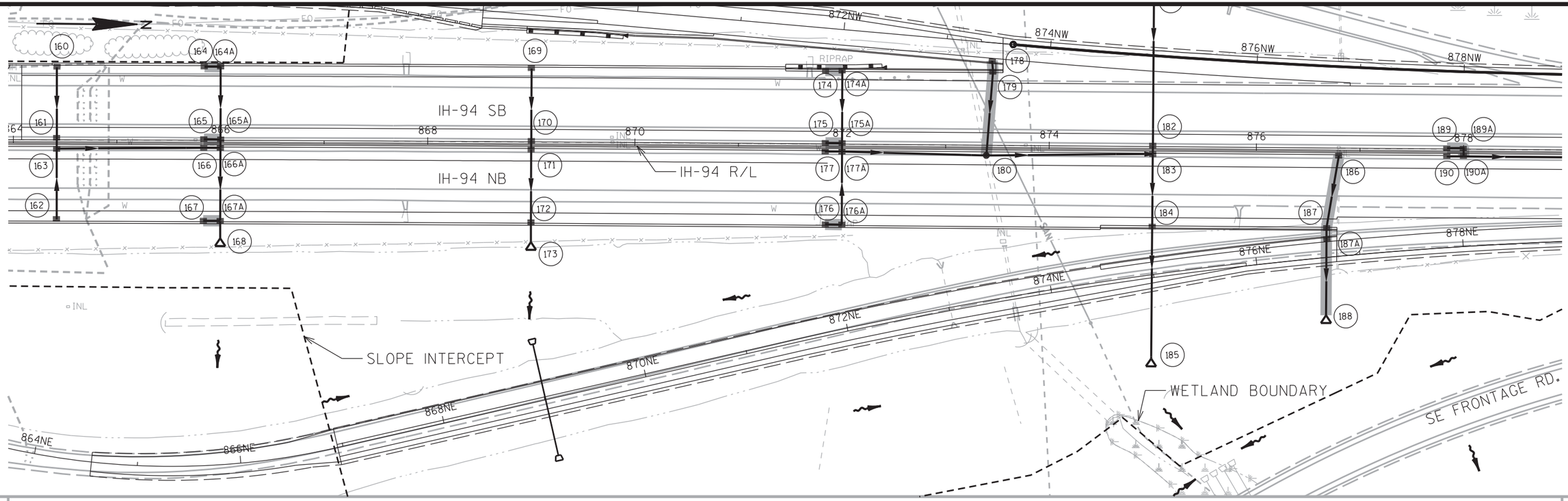
PROJECT NO: 1033-02-72	HWY: IH94/STH20	COUNTY: RACINE	STORM SEWER	SHEET 108 E

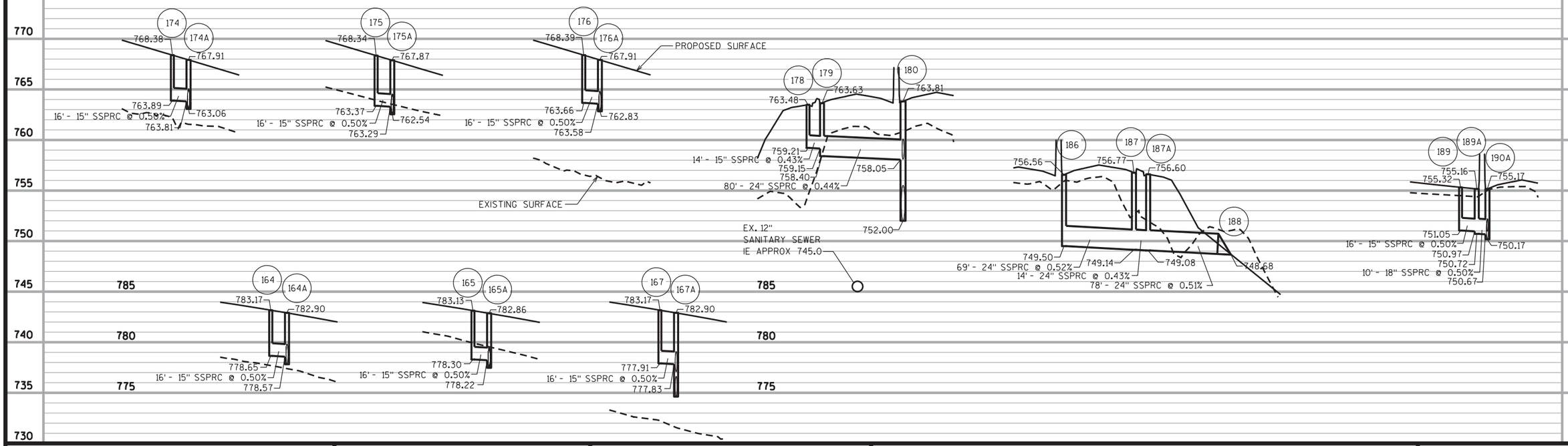
FILE NAME : S:\2013\WisDOT\STH 20\CADD files\CDS\SSE_STH20_0272_ss4.dgn PLOT DATE : 7/25/2013 PLOT BY : Harlan PLOT NAME : _____ PLOT SCALE : 1:100


N
IH-94 R/L
IH-94 SB
IH-94 NB
SLOPE INTERCEPT
854SW
856SW
858SW
860SW
862SW
864NW
866NW
854SE
856SE
858SE
860SE
862NE
PROPOSED SURFACE
EXISTING SURFACE
68' - 24" SSPRC @ 0.53%
49' - 24" SSPRC @ 0.53%
66' - 24" SSPRC @ 0.53%
68' - 24" SSPRC @ 0.62%
11' - 24" SSPRC @ 0.91%
68' - 24" SSPRC @ 0.51%
68' - 24" SSPRC @ 0.50%
10' - 24" SSPRC @ 0.50%
68' - 24" SSPRC @ 0.51%
22' - 15" SSPRC @ 0.50%
22' - 15" SSPRC @ 0.50%
28' - 15" SSPRC @ 0.50%
79' - 24" SSPRC @ 0.49%
68' - 24" SSPRC @ 0.55%
11' - 24" SSPRC @ 0.83%
66' - 24" SSPRC @ 0.53%
66' - 24" SSPRC @ 0.52%

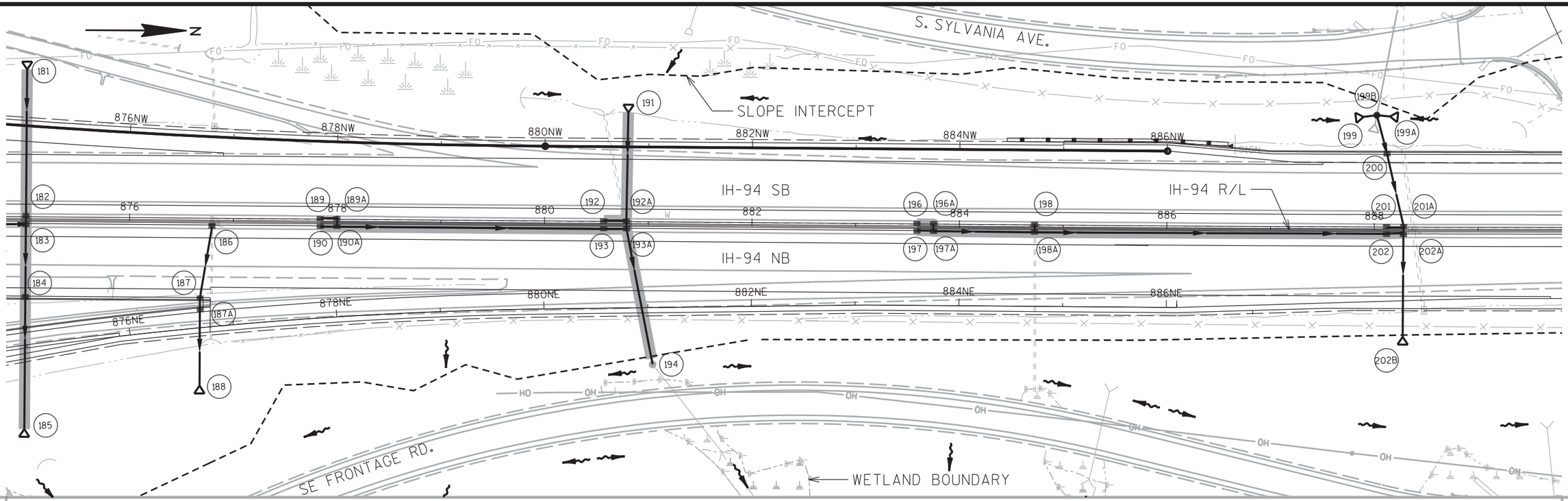


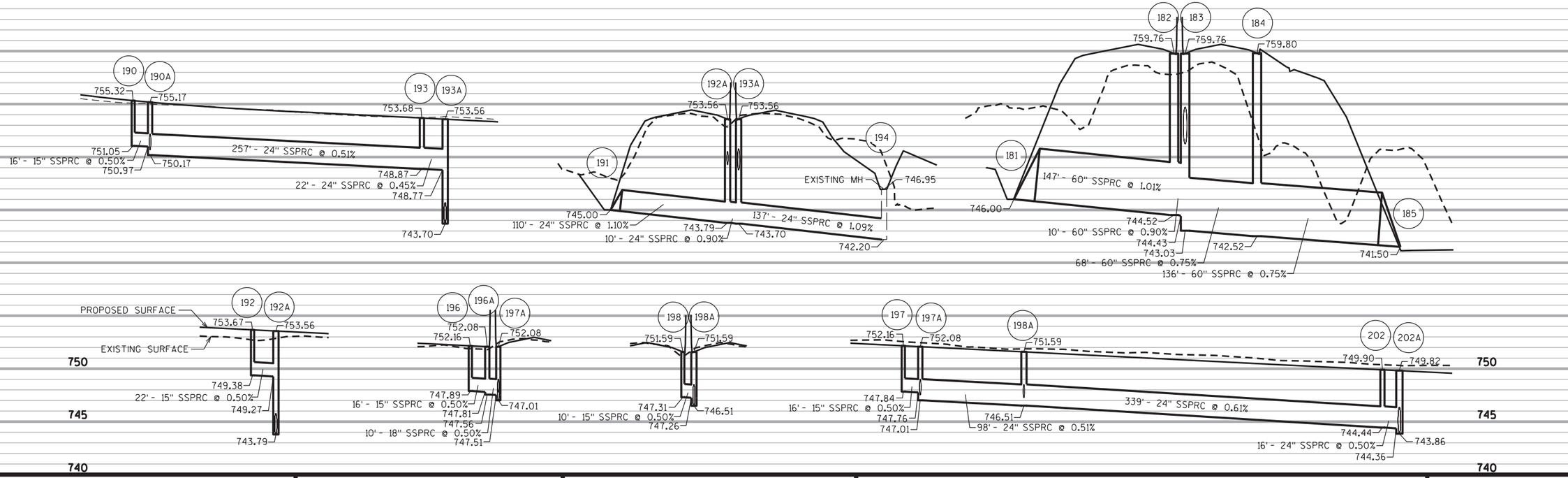
PROJECT NO: 1033-02-72	HWY: IH94/STH20	COUNTY: RACINE	STORM SEWER	SHEET 110 E





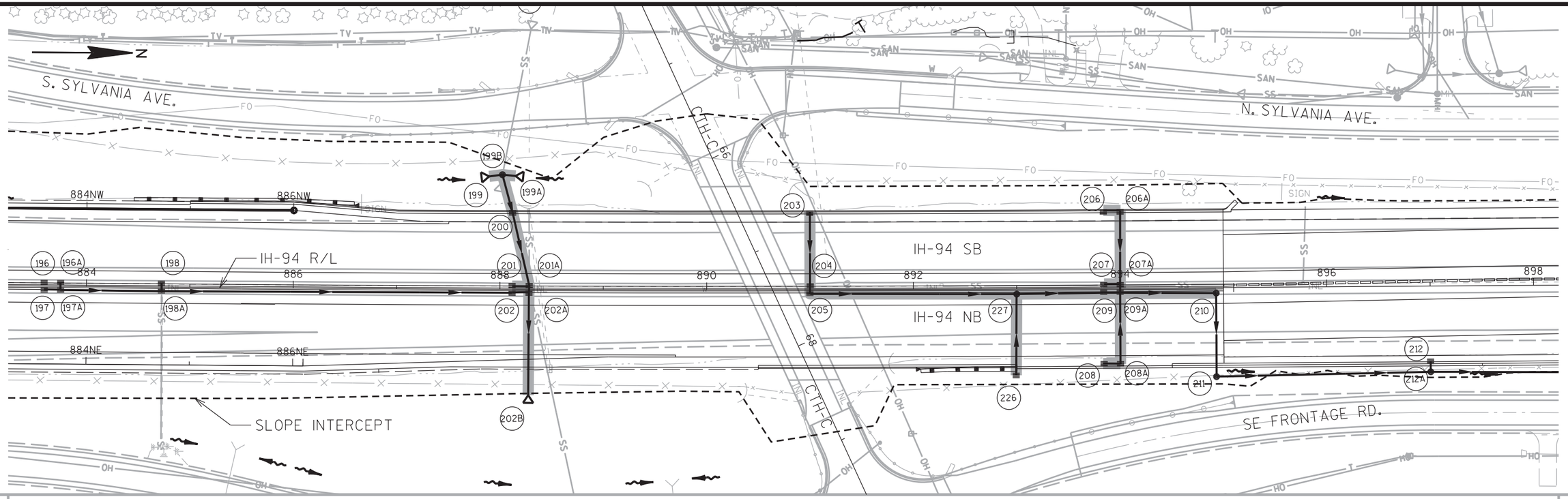
PROJECT NO: 1033-02-72	HWY: IH94/STH20	COUNTY: RACINE	STORM SEWER	SHEET 111 E

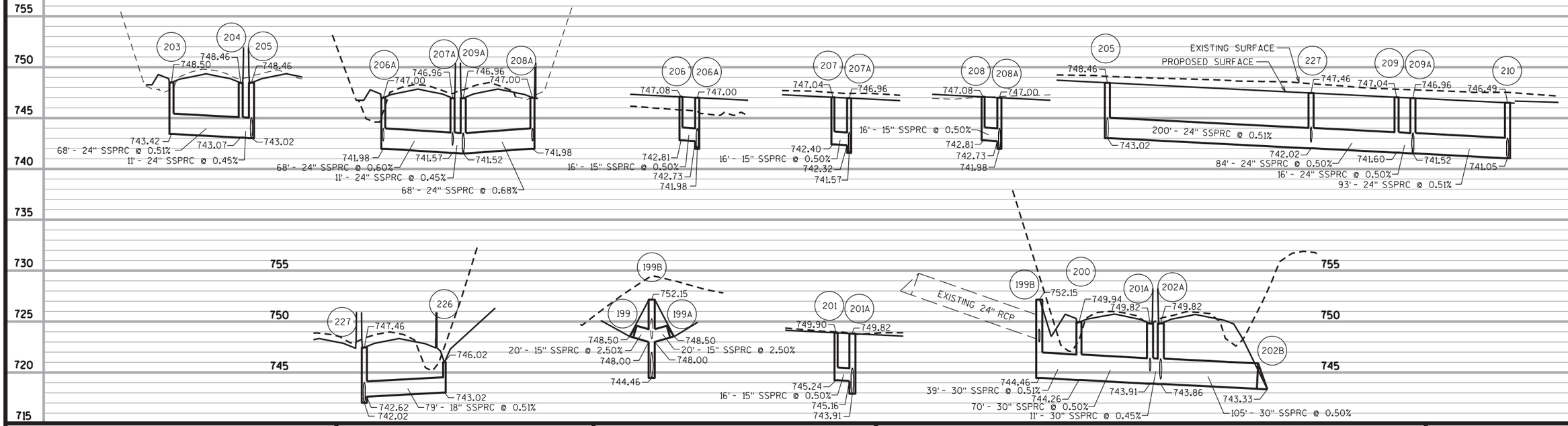




PROJECT NO: 1033-02-72	HWY: IH94/STH20	COUNTY: RACINE	STORM SEWER	SHEET 112 E

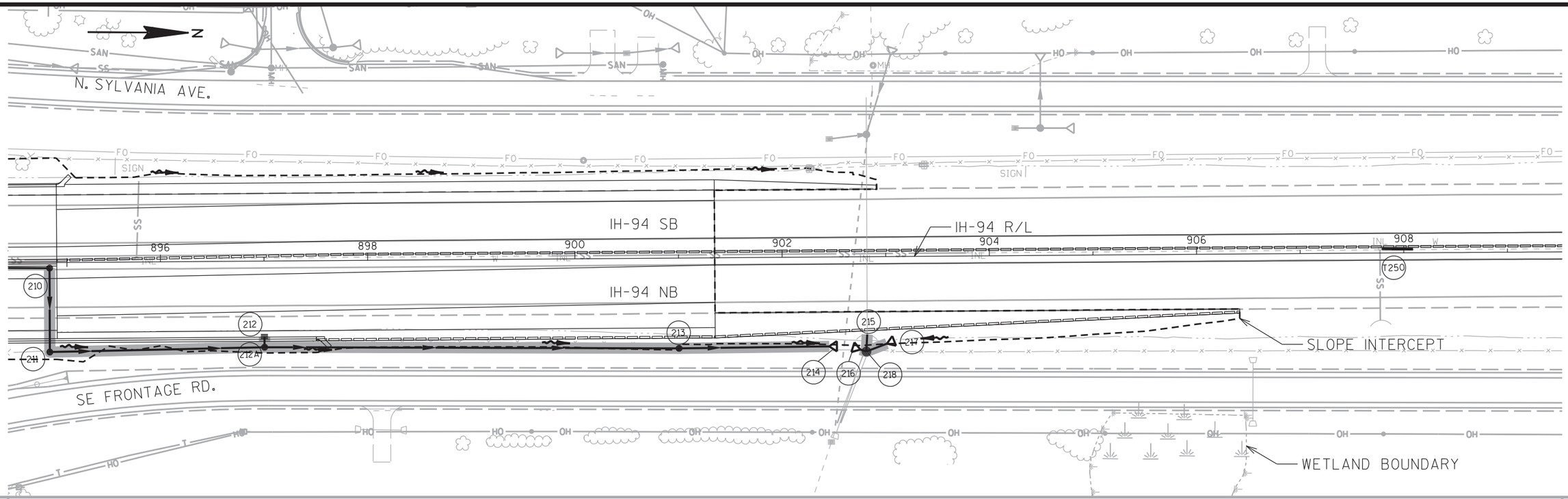
FILE NAME : S:\2013\WisDOT\STH 20\CADD files\CDS\SSE_STH20_0272_ss8.dgn PLOT DATE : 7/25/2013 PLOT BY : Harlan PLOT NAME : _____ PLOT SCALE : 1:100





PROJECT NO: 1033-02-72	HWY: IH94/STH20	COUNTY: RACINE	STORM SEWER	SHEET 113 E

FILE NAME : S:\2013\WisDOT\STH 20\CADD files\CDS\SSE_STH20_0272_ss9.dgn PLOT DATE : 7/25/2013 PLOT BY : Harlan PLOT NAME : _____ PLOT SCALE : 1:100



PROJECT NO:1033-02-72	HWY:IH94/STH20	COUNTY:RACINE	STORM SEWER	SHEET 114	E

FILE NAME : S:\2013\WisDOT\STH 20\CADD files\CDS\SSE_STH20_0272_ss10.dgn PLOT DATE : 7/31/2013 PLOT BY : Harlan PLOT NAME : _____ PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41

2

2

N

WEST FRONTAGE ROAD

IH 94 SB

826 828 830 832 834 836 838 W

MATCHLINE 840+00

IH 94 NB

838SE 840

EAST FRONTAGE ROAD

INL

SIGN

WALLS

W

NO PARKING ANY TIME

REMOVE 1R01

REMOVE 1R02 1R03

REMOVE 1R04

REMOVE 1R05 1R06

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EXISTING SIGNING	SHEET	E

2

2

N

MOVE BY DERSE, CALL 1-800-345-5772
LODGING

MOVE BY DERSE, CALL 1-800-345-5772
FOOD

MOVE BY DERSE, CALL 1-800-345-5772
GAS

FILLER CAPS

2M01
MOVE
TOURIST INFORMATION
0.2 MILE

INL

SIGN

842SW 844SW 846SW 848SW 850SW 852SW 854SW RAMP SW

IH 94 SB

840 842 844 846 848 850 852 854

IH 94 NB

842SE 844SE 846SE 848SE 850SE 852SE 854SE RAMP SE

MATCHLINE 840+00

MATCHLINE 855+00

NO PARKING ANY TIME
REMOVE 2R01 2R02

NO PARKING ANY TIME
REMOVE 2R03 2R04

NO PARKING ANY TIME
REMOVE 2R05 2R06

JCT 20
REMOVE 2R07

NO PARKING ANY TIME
REMOVE 2R08 2R09

NO PARKING ANY TIME
REMOVE 2R10 2R11

REMOVE 2R12

NO PARKING ANY TIME
REMOVE 2R13

Amtrak Station
REMOVE 2R14

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EXISTING SIGNING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\023202_es.dgn PLOT DATE : 31-JUL-2013 22:40 PLOT BY : MSCD1S PLOT NAME : 023202_es PLOT SCALE : 100:1

2

N

3R10
REMOVE
PARK & RIDE

3R12
3R13
REMOVE
CRASH INVESTIGATION SITE
Gateway Tech College

3R04
3R05
REMOVE
NO PARKING ANY TIME

3R06
3R07
REMOVE
NO PARKING ANY TIME

3R03
REMOVE
PARK & RIDE

WRONG WAY
REMOVE
3R08
3R09

LEFT LANE MUST TURN LEFT
REMOVE
3R11

GAS
GAS
DIESEL
HOSPITAL

MOVE BY DERSE, CALL 1-800-345-5772

3R01
REMOVE
NO PARKING ANY TIME

3R02
REMOVE
NO PARKING ANY TIME

856SW RAMP SW 858SW 860SW 862SW

856SE RAMP SE 858SE 860SE

864NW RAMP NW 866NW 868NW

862NE 864NE 866NE RAMP NE 868NE

IH 94 SB

IH 94 NB

STH 20

MATCHLINE 855+00

MATCHLINE 870+00

856 858 860 862 864 866 868

290 292 294 296 298

SIGN FILLER CAPS FLAG MH INL W HWY U/C FOUND W A/C

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EXISTING SIGNING	SHEET	E

2

2

4R04
REMOVE

Racine
Sheriff's
Substation
Waterford

4R05
REMOVE

4R07
REMOVE

JCT
20

4R02
4R03
REMOVE

NO PARKING ANY TIME

4R08
4R09
REMOVE

NO PARKING ANY TIME

N

SIGN

SIGN

SIGN

INL

RAMP NW

ONW
872NW
874NW
876NW
878NW
880NW
882NW
884NW

RIPRAP

W

FOOD

LODGING

MOVE BY DERSE,
CALL
1-800-345-5772

MOVE BY DERSE,
CALL
1-800-345-5772

IH 94 SB

IH 94 NB

MATCHLINE 870+00

MATCHLINE 885+00

70
872
874
876
878
880
882
884

INL

W

RIPRAP

INL

878NE
876NE
874NE
872NE
880NE
882NE
884NE

RAMP NE

7ONE

EAST FRONTAGE ROAD

NO PARKING ANY TIME

REMOVE
4R01

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EXISTING SIGNING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\023204_es.dgn PLOT DATE : 31-JUL-2013 22:41 PLOT BY : MSCD1S PLOT NAME : 023204_es PLOT SCALE : 100:1

2

2

REMOVE
30" X 30"
R1-1
STOP
ALL WAY
R1-4
18" X 6"
5R01

24" X 30"
M1-95A
WEST FRONTAGE ROAD
M6-4
21" X 21"
ESTR

WEST FRONTAGE ROAD

I 64

CTH C

I 66

I 68

I 70

I 72

886NW

886NE

MATCHLINE 885+00

886 888 890 892 894 896 898 900

IH 94 SB

IH 94 NB

REMOVE
30" X 30"
R1-1
STOP
ALL WAY
R1-4
18" X 6"
5R02

24" X 30"
M1-95A
WEST FRONTAGE ROAD
M6-4
21" X 21"
ESTR

REMOVE
30" X 30"
R1-1
STOP
ALL WAY
R1-4
18" X 6"
5R03

M1-95A
24" X 30"
EAST FRONTAGE ROAD
M6-4
21" X 21"
ESTR

EAST FRONTAGE ROAD

REMOVE
30" X 30"
R1-1
STOP
ALL WAY
R1-4
18" X 6"
5R04

24" X 30"
M1-95A
EAST FRONTAGE ROAD
M6-4
21" X 21"
ESTR

INL SIGN SS W MH

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	EXISTING SIGNING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\023205_es.dgn PLOT DATE : 31-JUL-2013 22:41 PLOT BY : MSCD1S PLOT NAME : 023205_es PLOT SCALE : 100:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

2

2

SIGN

SIGN

SIGN

INL INL W INL 810 812 814 INL 816 818 W 820 INL

58 WEST 94 MILE 334 2 D10-5(5) MOVE & REINSTALL ON WALL

59 EAST 94 MILE 334 2 D10-5(5)

60 WEST 94 MILE 334 1 D10-5(5) REMOVE

61 EAST 94 MILE 334 1 D10-5(5)

SHEET 10F 8

PROJECT NO: 1033-02-72	HWY: IH-94/STH 20	COUNTY: RACINE	PERMANENT SIGNING PLAN	SHEET 120	E

FILE NAME : J:\projects\d2_10330294\72\sign\023201_ps.dgn PLOT DATE : 23-JUL-2013 12:04 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

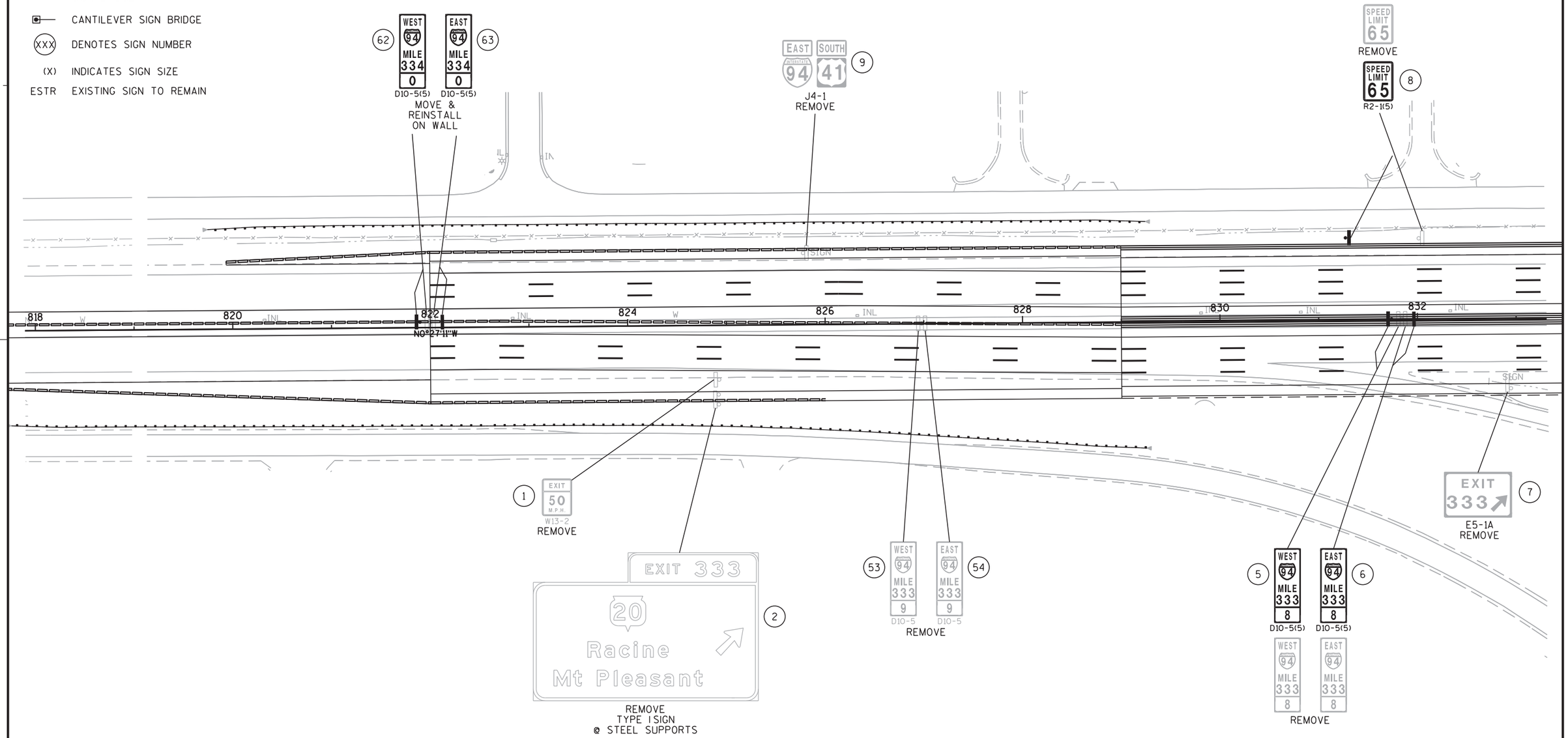
CANTILEVER SIGN BRIDGE

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

ESTR EXISTING SIGN TO REMAIN

N



SHEET 2 OF 8

PROJECT NO: 1033-02-72	HWY: IH-94/STH 20	COUNTY: RACINE	PERMANENT SIGNING PLAN	SHEET 121	E

FILE NAME : J:\projects\d2_10330294\72\sign\023202_ps.dgn PLOT DATE : 23-JUL-2013 12:04 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

COVER PLAQUE

18 EAST MB3-2 INTERSTATE 94 M1-1 | SOUTH M3-3 41 M1-4 | SOUTH MB3-3 INTERSTATE 41 M1-1
J4-3(5)

16 WEST 94 MILE 333 7 D10-5 | EAST 94 MILE 333 7 D10-5 17
REMOVE

842SW 844SW 846SW 848SW
N0°07'43"W N1°16'28"W

834 836 838 840 842 844 846 848

838SE 840SE 842SE 844SE 846SE 848SE

STATION 838+00

10 SLOWER TRAFFIC KEEP RIGHT R4-3
REMOVE

EXIT 333 11A
20
Racine
Mt Pleasant 11
INSTALL TYPE I SIGN
S-51-27 SIGN BRIDGE CANTILEVER TRUSS

12 WEST 94 MILE 333 6 D10-5(5) | EAST 94 MILE 333 6 D10-5(5) 13
WEST 94 MILE 333 6 | EAST 94 MILE 333 6
REMOVE

I SIGN

14 WEST 94 MILE 333 5 D10-5 | EAST 94 MILE 333 5 D10-5 15
REMOVE

PROJECT NO: 1033-02-72	HWY: IH-94/STH 20	COUNTY: RACINE	PERMANENT SIGNING PLAN	SHEET 122 E

FILE NAME : J:\projects\d2_10330294\72\sign\023203_ps.dgn PLOT DATE : 23-JUL-2013 12:04 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1
WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

REMOVE

31 W4-1(5)

25 26 W5-52R(5) 4' MOUNTING HEIGHT MOUNT ON WALL (SEE DETAIL)

850SW 852SW 854SW 856SW 858SW 860SW 862SW

IH-94

850 852 854 856 858 860 862

850SE 852SE 854SE 856SE 858SE 860SE

STH 20

296 298

862NE

19 W5-58(2) ON END OF IMPACT ATTENUATOR

20 WEST 94 MILE 333 4 D10-5(5)

21 EAST 94 MILE 333 4 D10-5(5)

WEST 94 MILE 333 4 EAST 94 MILE 333 4 REMOVE

22 W5-52R REMOVE

23 EXIT 333 E5-1A(5) SEE WALL MOUNTING DETAIL

29 WEST 94 MILE 333 3 D10-5

30 EAST 94 MILE 333 3 D10-5

REMOVE

27 28 W5-52L(5) 4' MOUNTING HEIGHT

SHEET 4 OF 8

PROJECT NO: 1033-02-72	HWY: IH-94/STH 20	COUNTY: RACINE	PERMANENT SIGNING PLAN	SHEET 123 E

FILE NAME : J:\projects\d2_10330294\72\sign\023204_ps.dgn PLOT DATE : 23-JUL-2013 12:04 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N

290

HWY

864NW 866NW 868NW 870NW 872NW 874NW 876NW 878NW

N4°47'17"E

IH-94

864 866 868 870 872 874 876 878

N0°13'51"E

IH-94

878NE 876NE 874NE 872NE 870NE 868NE 866NE 864NE

N13°08'03"W

REMOVE

(40) WEST 94 MILE 333 0 D10-5(5)

(41) EAST 94 MILE 333 0 D10-5(5)

REMOVE

EXIT 333

(39) EXIT 333 E5-1A(5)

(32) WEST 94 MILE 333 2 D10-5(5)

(33) EAST 94 MILE 333 2 D10-5(5)

REMOVE

WEST 94 MILE 333 2

EAST 94 MILE 333 2

(34) WEST 94 MILE 333 1 D10-5

(35) EAST 94 MILE 333 1 D10-5

REMOVE

(36) W4-1(5)

REMOVE

(37) WEST 94 MILE 332 9 D10-5

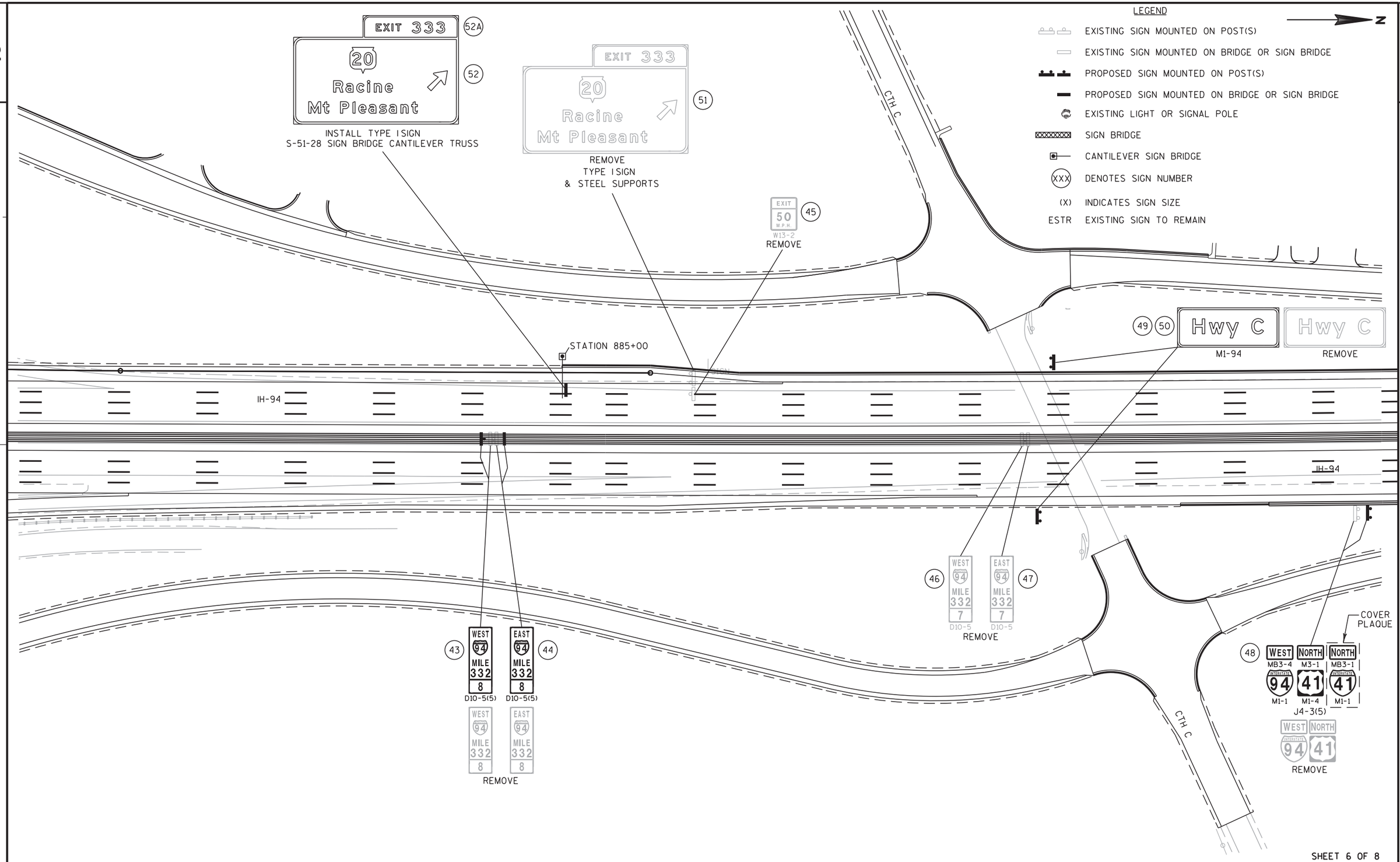
(38) EAST 94 MILE 332 9 D10-5

REMOVE

SHEET 5 OF 8

PROJECT NO: 1033-02-72	HWY: IH-94/STH 20	COUNTY: RACINE	PERMANENT SIGNING PLAN	SHEET 124	E

2



SHEET 6 OF 8

PROJECT NO: 1033-02-72	HWY: IH-94/STH 20	COUNTY: RACINE	PERMANENT SIGNING PLAN	SHEET 125	E

FILE NAME : J:\projects\d2_10330294\72\sign\023206_ps.dgn PLOT DATE : 23-JUL-2013 12:04 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1

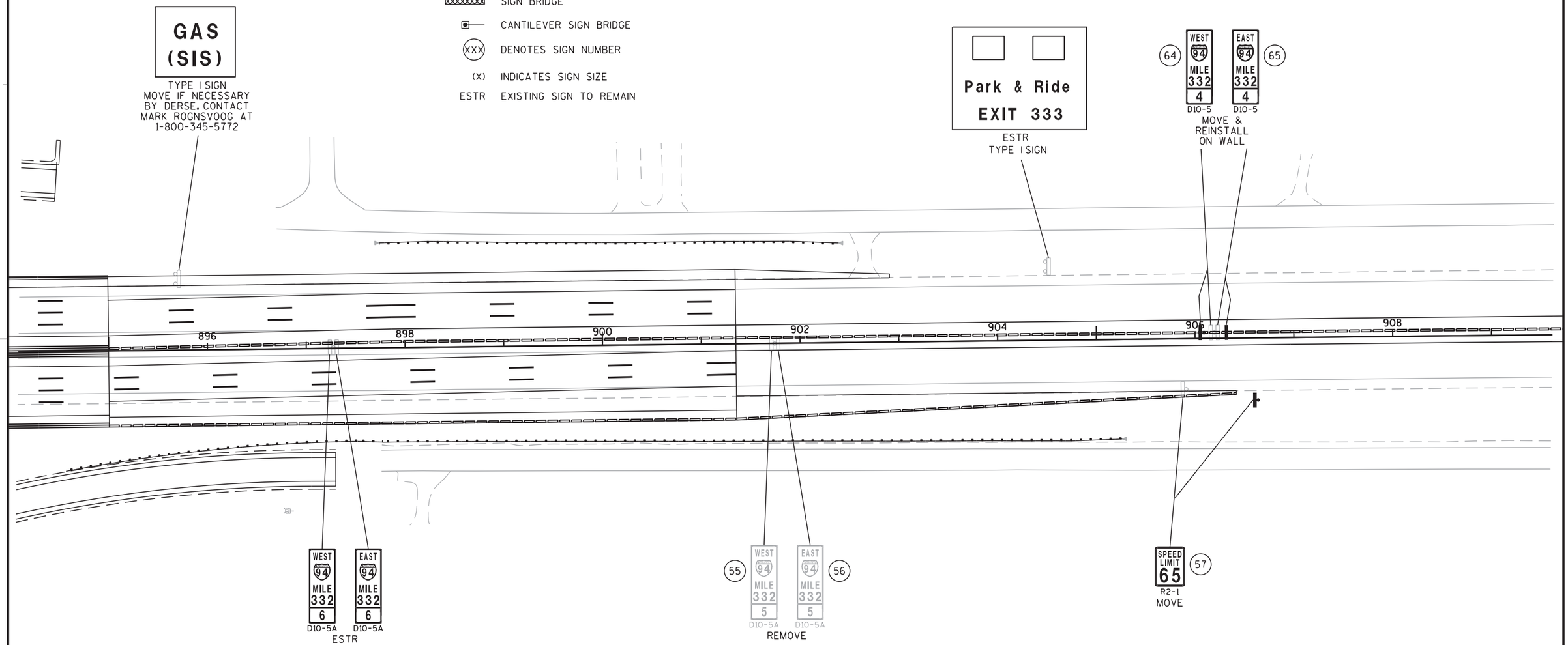
WISDOT/CADDS SHEET 42

2

LEGEND

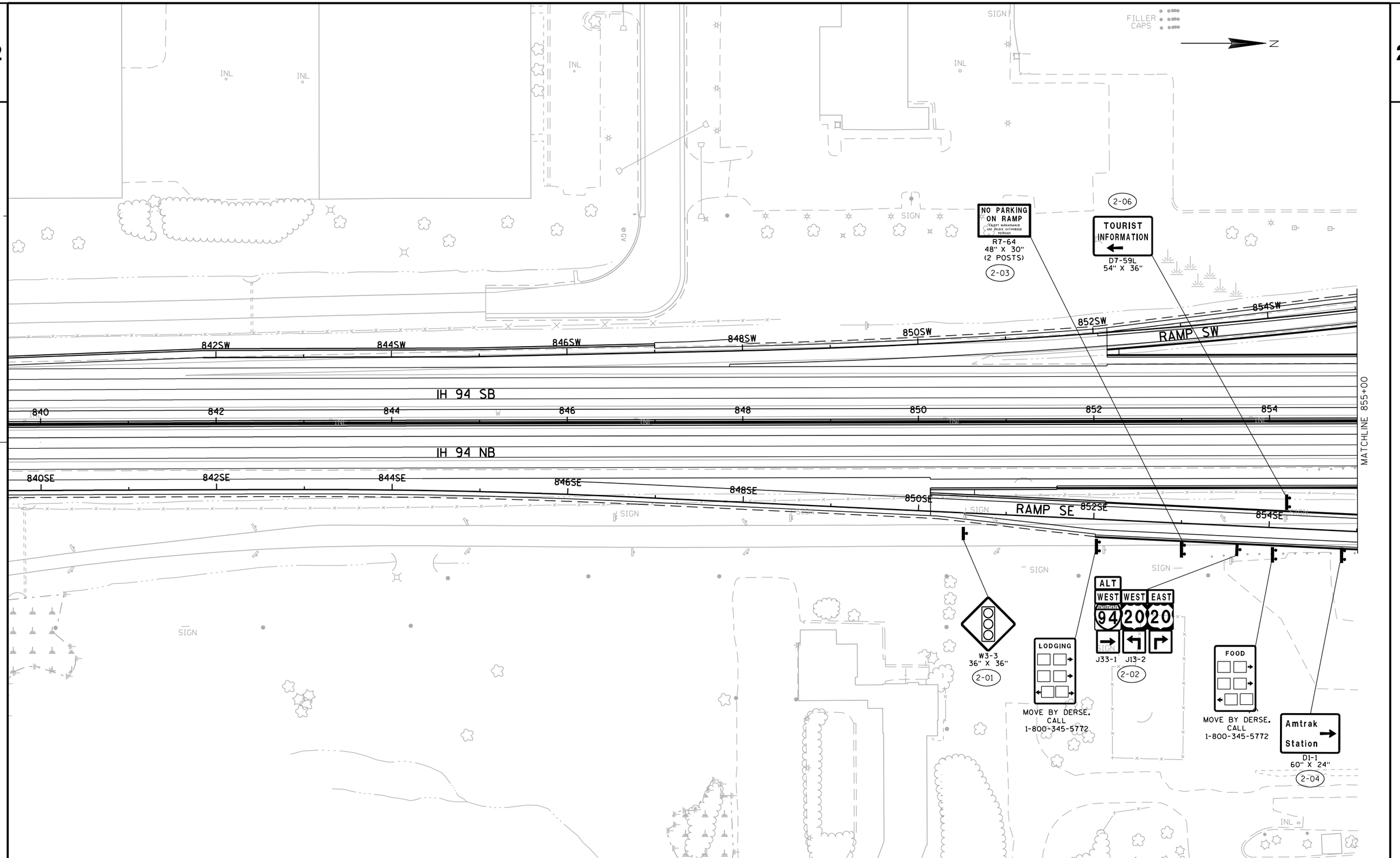
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

N



PROJECT NO: 1033-02-72	HWY: IH-94/STH 20	COUNTY: RACINE	PERMANENT SIGNING PLAN	SHEET 126	E

FILE NAME : J:\projects\d2_10330294\72\sign\023207_ps.dgn PLOT DATE : 23-JUL-2013 12:04 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 100:1
WISDOT/CADDS SHEET 42



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PERMANENT SIGNING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\023207_ps.dgn PLOT DATE : 06-NOV-2013 16:25 PLOT BY : MSCAMG PLOT NAME : 023207_ps PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

3-03
W4-2R
36" X 36"

3-04
NO PARKING ON RAMP
EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES
R7-64
48" X 30"
(2 POSTS)

3-06
D1-2
84" X 42"
Racine
Mt Pleasant
Waterford

3-07
PARK & RIDE
D4-2R
36" X 48"

RAMP SW
856SW
858SW
860SW
862SW

RAMP NW
864NW
866NW
868NW

IH 94 SB
IH 94 NB

MATCHLINE 855+00

MATCHLINE 870+00

RAMP SE
856SE
858SE
860SE

RAMP NE
862NE
864NE
866NE
868NE

290
292
294
296
298

GAS
MOVE BY DERSE, CALL 1-800-345-5772

PARK & RIDE
D4-2L
36" X 48"
3-05

3-12
D1-2
84" X 42"
Waterford
Racine
Mt Pleasant

NO PARKING ON RAMP
EXCEPT MAINTENANCE AND POLICE AUTHORIZED VEHICLES
R7-64
48" X 30"
3-10

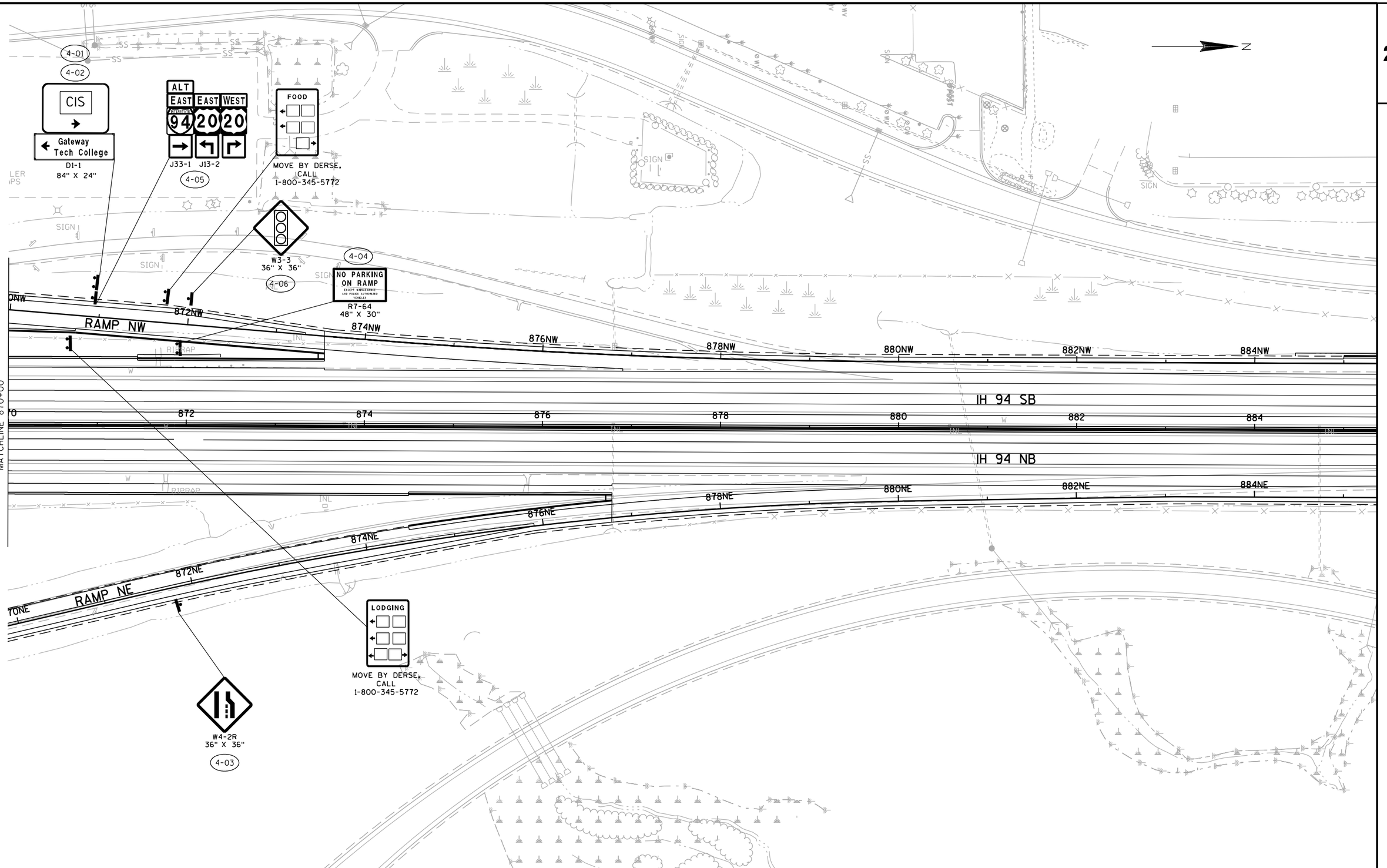
NO PARKING
R7-1D
18" X 24"
3-11

GAS
DIESEL
HOSPITAL
MOVE BY DERSE, CALL 1-800-345-5772

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PERMANENT SIGNING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\023208_ps.dgn PLOT DATE : 06-NOV-2013 16:25 PLOT BY : MSCAMG PLOT NAME : 023208_ps PLOT SCALE : 100:1

2



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PERMANENT SIGNING	SHEET	E

2

N

6-01
STOP
R1-1
36" X 36"

6-02
STOP
R1-1
36" X 36"

6-03
STOP
R1-1
36" X 36"

6-04
STOP
R1-1
36" X 36"

CTH C

62 64 66 68 70 72 74

892 894 896

888 890

886NW 886NE

SIGN SIGN

W W

SS SS

INL INL INL INL

WALLS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PERMANENT SIGNING	SHEET	E

2

N

6-01
STOP
R1-1
36" X 36"

6-02
STOP
R1-1
36" X 36"

6-03
STOP
R1-1
36" X 36"

6-04
STOP
R1-1
36" X 36"

CTH C

62 64 66 68 70 72 74

892 894 896

888 890

886NW 886NE

SIGN SIGN

W W

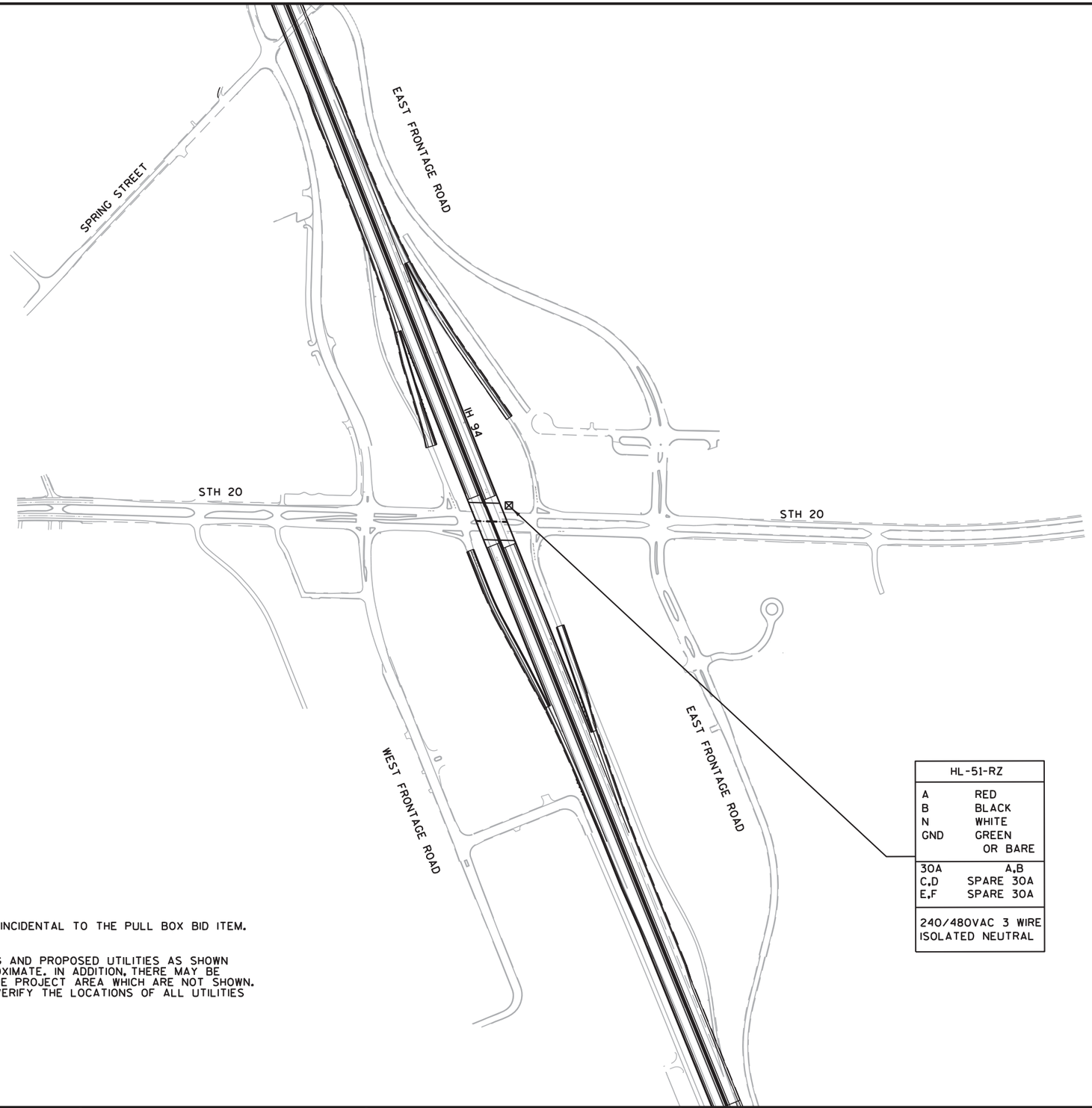
SS SS

INL INL INL INL

WALL

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PERMANENT SIGNING	SHEET	E

2

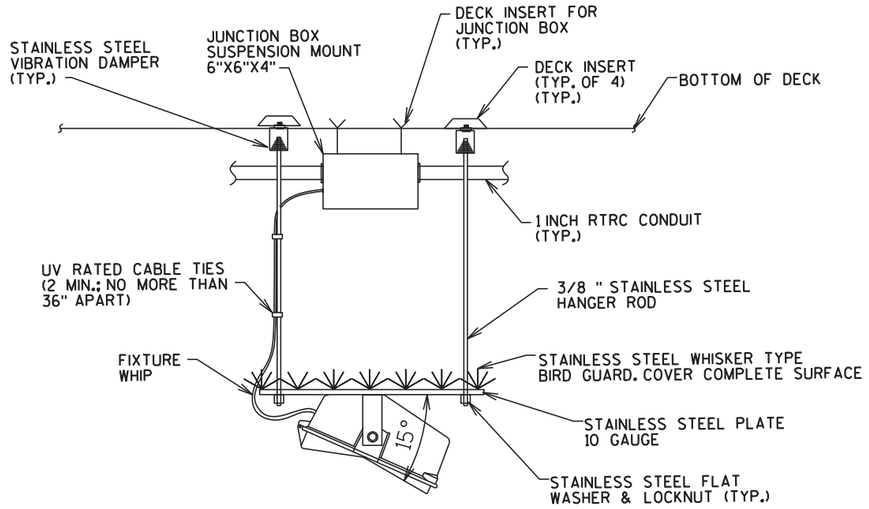


HL-51-RZ	
A	RED
B	BLACK
N	WHITE
GND	GREEN OR BARE
30A	A,B
C,D	SPARE 30A
E,F	SPARE 30A
240/480VAC 3 WIRE ISOLATED NEUTRAL	

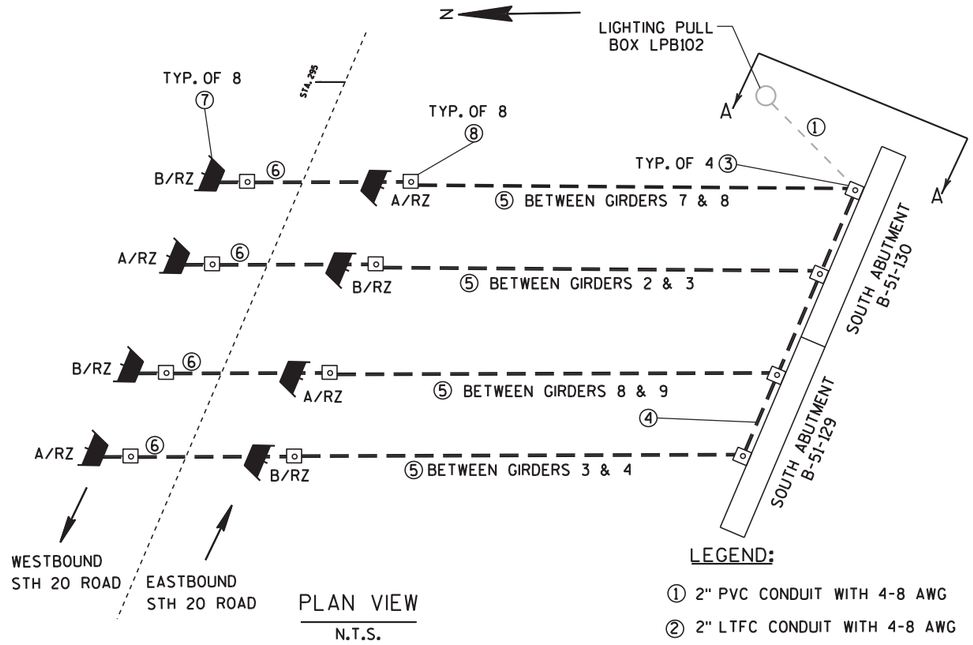
NOTES:

1. WIRE IN THE PULL BOX IS INCIDENTAL TO THE PULL BOX BID ITEM.

2. THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.



TYP. LUMINAIRE INSTALLATION



PLAN VIEW

N.T.S.

LEGEND:

① 2" PVC CONDUIT WITH 4-8 AWG

② 2" LTFC CONDUIT WITH 4-8 AWG

③ JUNCTION BOX (SEE SPV's) - SURFACE MOUNTED TO DIAPHRAGM BETWEEN GIRDERS

④ 1" RTRC ALONG ABUTMENT WITH 4-10 AWG - ATTACHED TO ABUTMENT

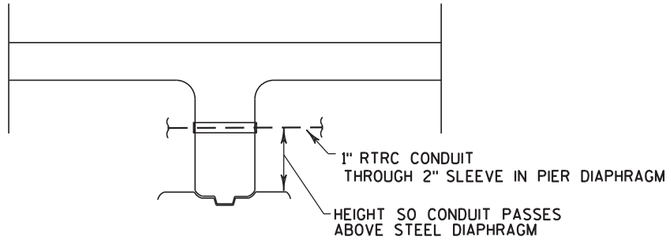
⑤ 1" RTRC IN BEAM SPACE WITH 4-10 AWG

⑥ 1" RTRC IN BEAM SPACE WITH 3-10 AWG

⑦ LUMINAIRES UNDERDECK LED (SEE SPV's)

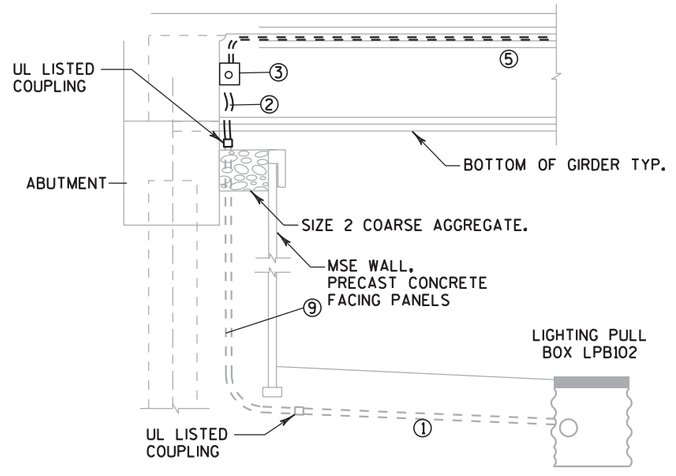
⑧ SUSPENDED JUNCTION BOX (SEE SPV's)

⑨ 2" PVC CONDUIT INSTALLED BEHIND MSE WALL INCIDENTAL TO STRUCTURE PAY ITEMS.



CENTER PIER DIAPHRAGM DETAIL

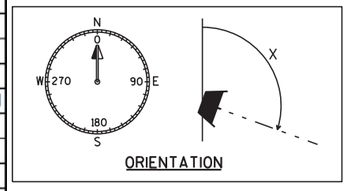
N.T.S.



SECTION A-A SOUTH ABUTMENT

N.T.S.

LUMINAIRE LOCATIONS				
STRUCTURE B-51-129				
ROADWAY UNDER	STATION	OFFSET	BETWEEN GIRDER	ORIENTATION
WB STH 20	293+42.5	20LT	3 & 4	23 °
WB STH 20	293+83.3	20LT	8 & 9	23 °
EB STH 20	293+57.2	14RT	3 & 4	203 °
EB STH 20	293+98.1	14RT	8 & 9	203 °
	D			
STRUCTURE B-51-130				
ROADWAY UNDER	STATION	OFFSET	BETWEEN GIRDER	ORIENTATION
WB STH 20	294+19.9	20LT	2 & 3	23 °
WB STH 20	294+60.7	20LT	7 & 8	23 °
EB STH 20	294+34.6	14RT	2 & 3	203 °
EB STH 20	294+75.5	14RT	7 & 8	203 °



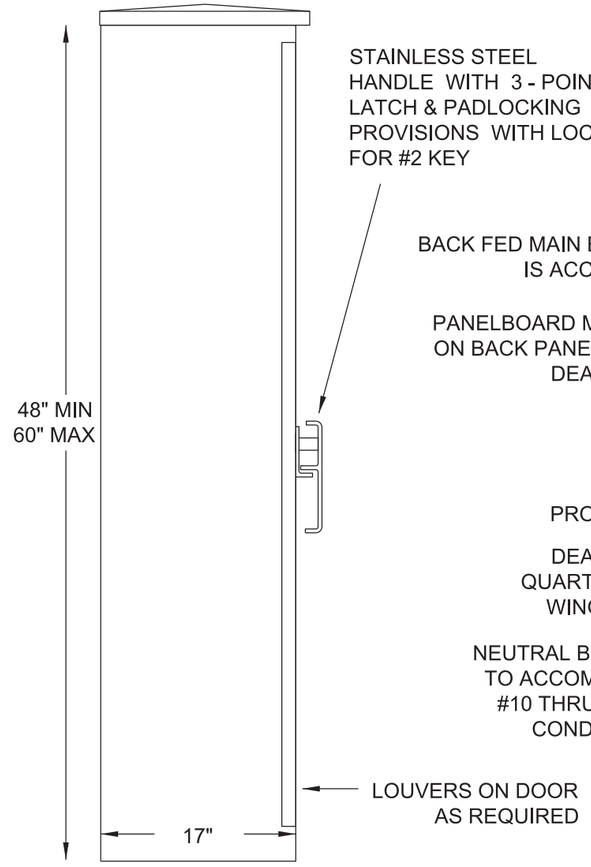
ORIENTATION

NOTES:

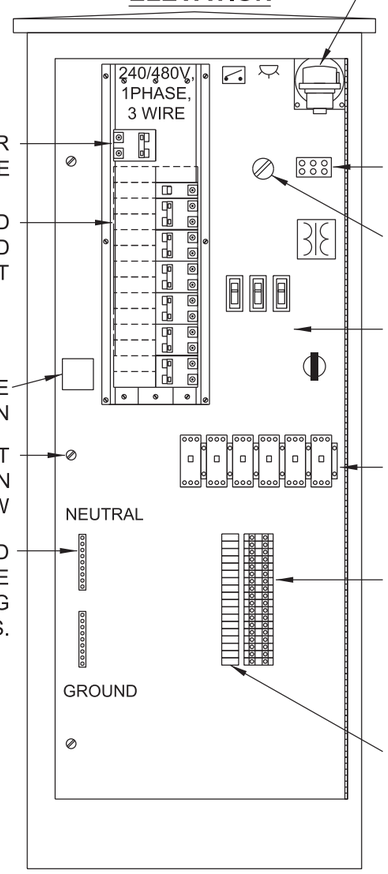
1. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
2. STRUCTURE DIMENSIONS SHOWN ARE FOR INFORMATION ONLY. THE STRUCTURE DRAWINGS GOVERN.
3. CENTER LUMINAIRES, CONDUIT, JUNCTION BOXES ETC., IN THE SPACES BETWEEN GIRDERS (LONGITUDINALLY). CENTER LUMINAIRES LATERALLY OVER THE LEFT TURN LANES.
4. TYPE RTRC CONDUIT TO PASS ABOVE STEEL DIAPHRAGMS.
5. INSTALL LUMINAIRES SUCH THAT THE LOWEST PART IS ONE INCH ABOVE THE BOTTOM OF THE GIRDERS.
6. APPLY LOCKING COMPOUND TO THREADED PARTS IN HANGER ASSEMBLIES.
7. GIRDER SLEEVES SHALL BE FORMED. DO NOT DRILL, EITHER IN FACTORY OR FIELD. INCIDENTAL TO STRUCTURE PAY ITEMS.
8. ALL LIGHTING WORK SHOWN HERE FOR UNDERDECK LIGHTING WILL BE PAID UNDER PAY ITEM "UNDERDECK LIGHTING SPECIAL STH 20 ROAD" UNLESS NOTED OTHERWISE.

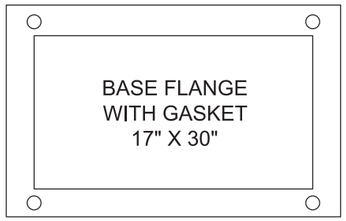
UNDERDECK LIGHTING SPECIAL - STH 20 UNDER IH-94

LEFT SIDE VIEW



FRONT INTERIOR ELEVATION





NEMA TWIST-LOCK WISDOT APPROVED PHOTOCELL, 240V MOUNTED BEHIND WINDOWS

PHOTOCELL TERMINAL BLOCK

HAND-OFF-AUTO SWITCH MOUNTED ON HINGED DEAD FRONT

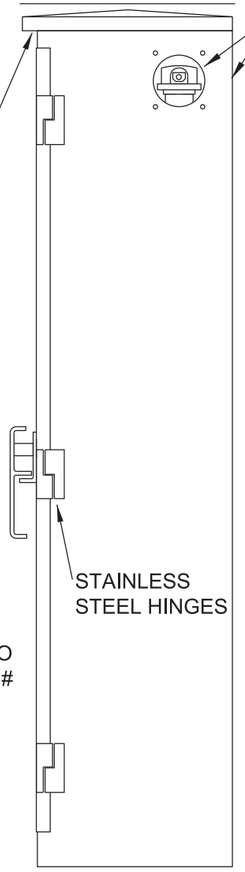
INTERIOR COMPONENTS MOUNTED ON BACK PANEL BEHIND HINGED DEAD FRONT

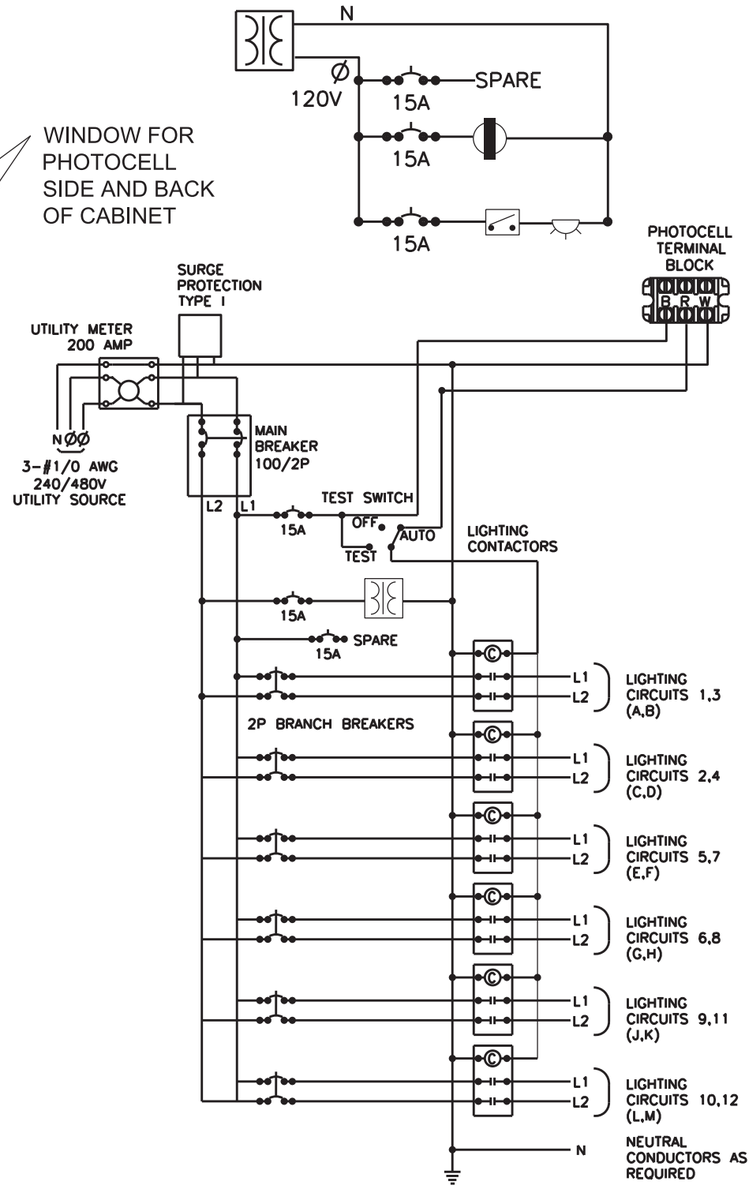
(6) 2P CONTACTORS, 240V COIL (CONTACTORS SIZED AS REQUIRED)

TERMINAL BLOCKS FOR LIGHTING CIRCUIT CONDUCTORS PRE-WIRED TO CONTACTORS. SIZED TO ACCOMMODATE #10 THRU # 2 AWG CONDUCTORS.

CIRCUIT LABELS

RIGHT SIDE VIEW





LEGEND:

- 15AMP GFCI DUPLEX RECEPTACLE WITH COVER, 120V,
- 1.5KVA, SINGLE PHASE ENCAPSULATED TRANSFORMER 240//120V, 60HZ
- SPST, 20AMP SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
- INCANDESCENT LIGHTING FIXTURE 60WATT, 120V LAMP.
- 15AMP/1P CIRCUIT BREAKER, 120V

PANELBOARD:

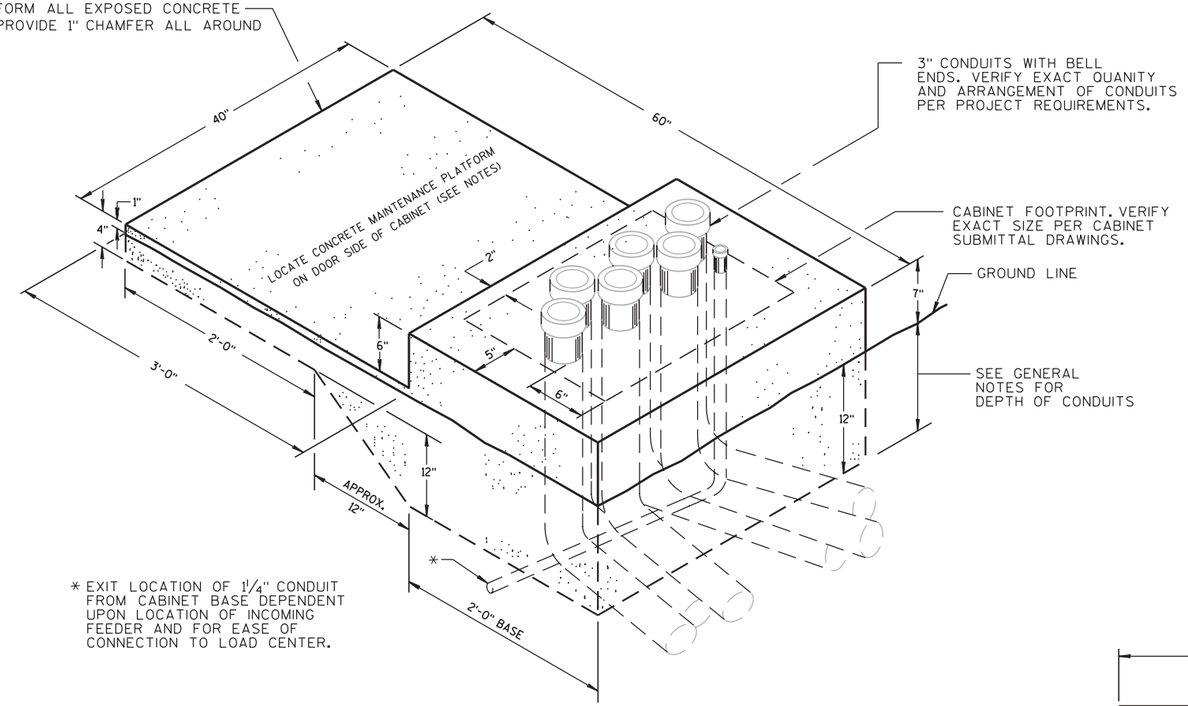
- 30 CIRCUIT MIN.
- 100AMP MAIN CIRCUIT BREAKER
- COPPER BUS
- BOLT- ON BREAKERS
- 22K AIC
- (2) 15A/1P CONTROL BREAKER, 240V
- (1) 15A/1P CONTROL BREAKER, 240V, SPARE
- (6) 30A/2P BRANCH BREAKERS

BOX CONSTRUCTION:

- NEMA3R
- UL LISTED
- -1/8" ALUMINUM 5052-H32 ANODIZED CLEAR
- BENT CONSTRUCTION - ONE PIECE SIDES AND BACK
- NEOPRENE GASKETED DOORS
- STAINLESS STEEL HARDWARE
- ETL LISTED IN ACCORDANCE W/ UL508A

CONTROL CABINET SCHEMATIC

240/480 VOLT LIGHTING CONTROL CABINET POV-WISDOT 240/480

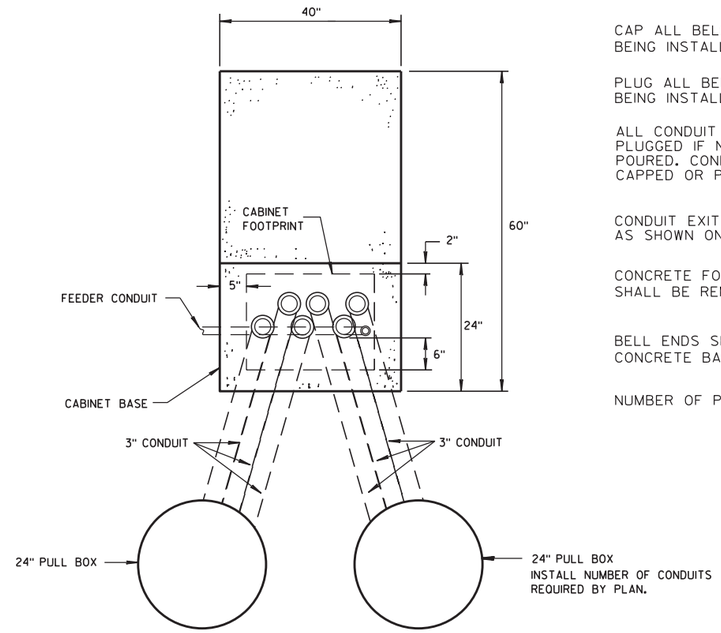


* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASES, SPECIAL

(C.Y. CONCRETE = APPROX. 0.4)



PLAN VIEW

CONCRETE CONTROL CABINET BASES, SPECIAL

GENERAL NOTES:

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.
DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

NUMBER OF PULL BOX INSTALLED SHALL BE AS SHOWN IN THE PLAN.

2

GENERAL NOTES:

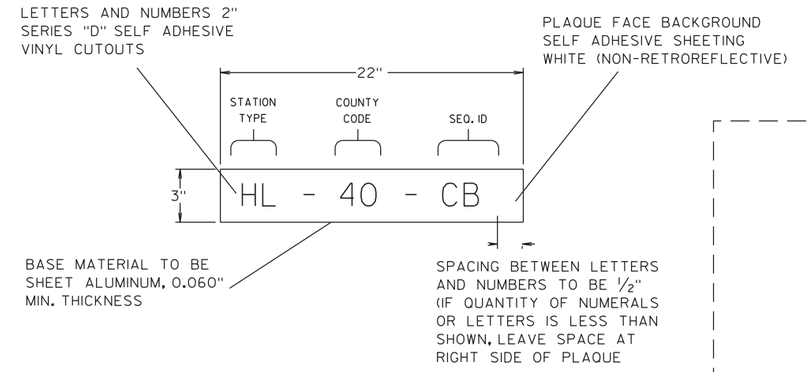
FREEWAY LIGHTING SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 652 TO 657 AND 659 EXCEPT:

1. DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THESE DRAWINGS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
2. LOCATIONS OF THE PVC CONDUITS ARE INDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. HOWEVER, INSTALLATION WILL REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. UNDER THE APPROVAL OF THE ENGINEER, APPROPRIATE ADJUSTMENT OF CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. FIELD MARK EACH CONDUIT LOCATION IN RED TO ILLUSTRATE AS BUILT CONDITIONS.
3. THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.
4. ALL OPEN AND UNTERMINATED CONDUITS SHALL BE CAPPED OR PLUGGED WITH ENGINEER APPROVED FITTINGS IMMEDIATELY AFTER INSTALLATION.
5. BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR IMMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.
6. ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS.
7. PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT THAT CAN BE EASILY REMOVED. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.
8. CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX-TO-PULL BOX, JUNCTION BOX OR BASE-TO-BASE, ETC.) UNLESS OTHERWISE NOTED ON PLANS.
9. PULL ROPE ($\frac{3}{8}$-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUITS.
10. CONTRACTOR SHALL SUPPLY AS-BUILT DRAWINGS (PDF FORMAT) FOR ALL THE WORK BEING DONE.
11. CONDUIT LATERALS SHALL BE TRENCHED UNDER PAVEMENT BEFORE PAVEMENT CONSTRUCTION.
12. UNDERGROUND WIRE & CONDUIT SHOWN ON REMOVAL PLANS FOR REMOVAL SHALL BE ABANDONED IN PLACE UNLESS DIRECTED BY THE ENGINEER. CONTRACTOR MAY CHOOSE TO REMOVE CONDUCTOR AT THEIR OWN EXPENSE.
13. PROVIDE MINIMUM CABLE SLACK AS MENTIONED BELOW:

PULL BOXES:	10-FT
EMBEDDED JUCTION BOXES:	3-FT
DISTRIBUTION CENTER/LOAD CENTER:	10-FT
POLE BASES:	5-FT IN AND 5-FT OUT

GENERAL NOTES:

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS.



DISTRIBUTION CENTER IDENTIFICATION PLAQUE

CHAMBERS

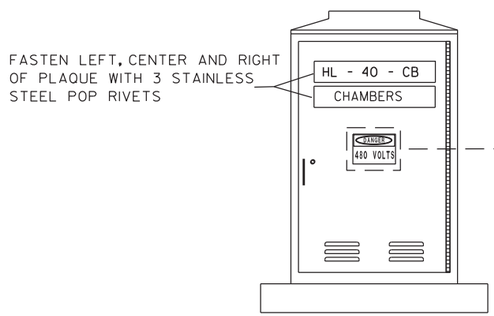
MNEMONIC
(SEE MISC. QTYS.)
(NO. OF CHARACTERS VARIES THIRD PLAQUE MAY BE NECESSARY)

TWO REQUIRED CABINET AND METER PEDESTALS (PAID AS PLAQUES SEQUENCE IDENTIFICATIONS)



APROX. 10 1/2" × 7"

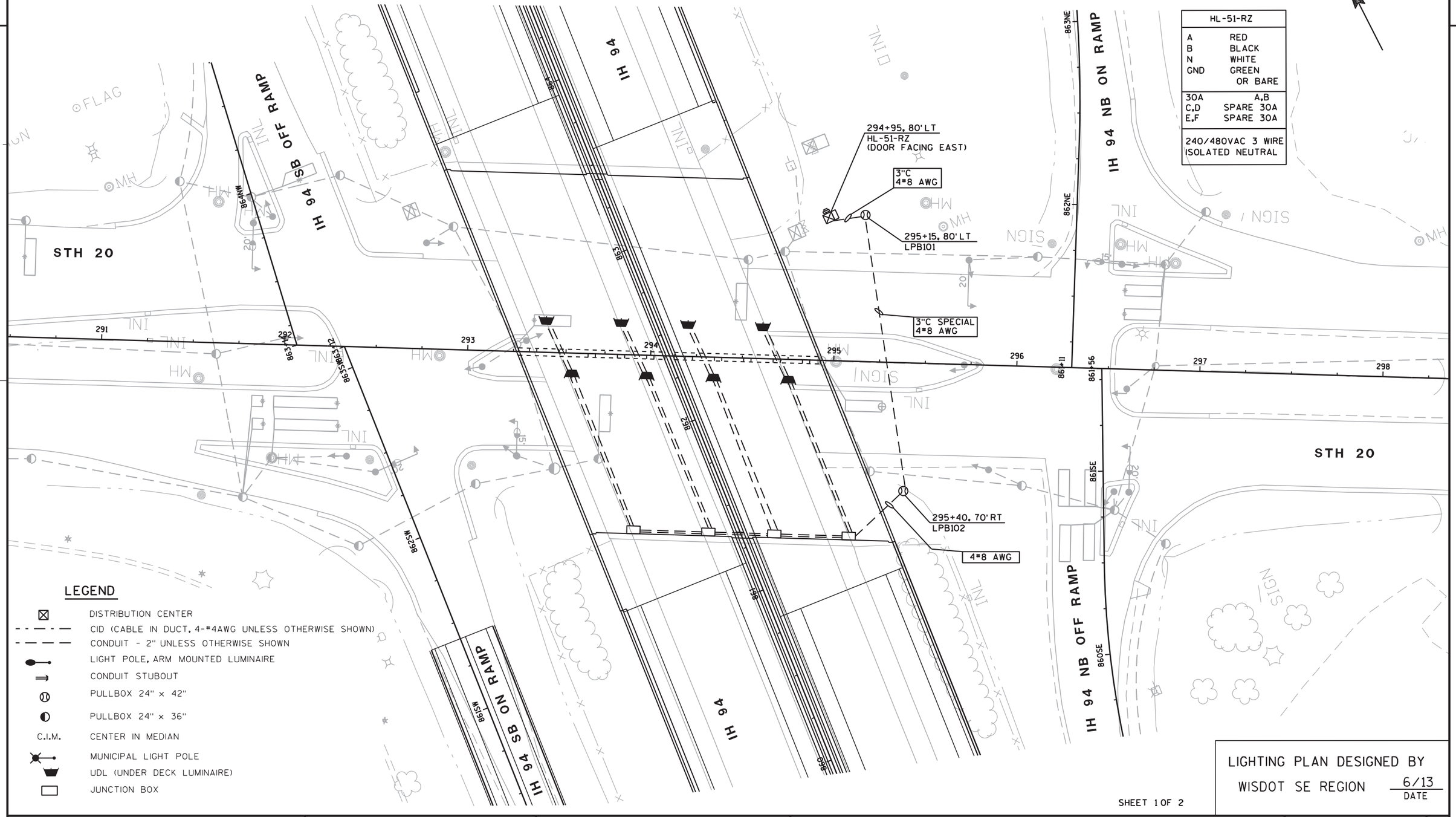
*SOME LOCATIONS WILL BE 240 VOLTS



DISTRIBUTION CENTER IDENTIFICATION PLAQUE REQUIREMENTS AND PLACEMENTS
(TYPICAL ALL CONTROL CABINETS)

PROJECT NO: 1033-02-72	HWY: IH 94	COUNTY: RACINE	LIGHTING DETAIL - CABINET PLAQUES	SHEET 137	E

2



LEGEND

- DISTRIBUTION CENTER
- CID (CABLE IN DUCT, 4-#4AWG UNLESS OTHERWISE SHOWN)
- CONDUIT - 2" UNLESS OTHERWISE SHOWN
- LIGHT POLE, ARM MOUNTED LUMINAIRE
- CONDUIT STUBOUT
- PULLBOX 24" x 42"
- PULLBOX 24" x 36"
- C.I.M. CENTER IN MEDIAN
- MUNICIPAL LIGHT POLE
- UDL (UNDER DECK LUMINAIRE)
- JUNCTION BOX

SHEET 1 OF 2

LIGHTING PLAN DESIGNED BY
WISDOT SE REGION 6/13 DATE

PROJECT NO: 1033-02-72	HWY: IH 94	COUNTY: RACINE	LIGHTING PLAN	SHEET 138	E

2

N

HL-51-RZ	
A	RED
B	BLACK
N	WHITE
GND	GREEN OR BARE
30A	A,B
C,D	SPARE 30A
E,F	SPARE 30A
240/480VAC 3 WIRE ISOLATED NEUTRAL	

STH 20

IH 94 SB OFF RAMP

IH 94

IH 94 NB ON RAMP

294+95, 80'LT
HL-51-RZ
(DOOR FACING EAST)

3" C
4#8 AWG

295+15, 80'LT
LPB101

3" C SPECIAL
4#8 AWG

3#10 AWG

3#10 AWG

4#10 AWG

4#10 AWG

295+40, 70'RT
LPB102

4#8 AWG

4#8 AWG

IH 94 SB ON RAMP

IH 94

IH 94 NB OFF RAMP

STH 20

LEGEND

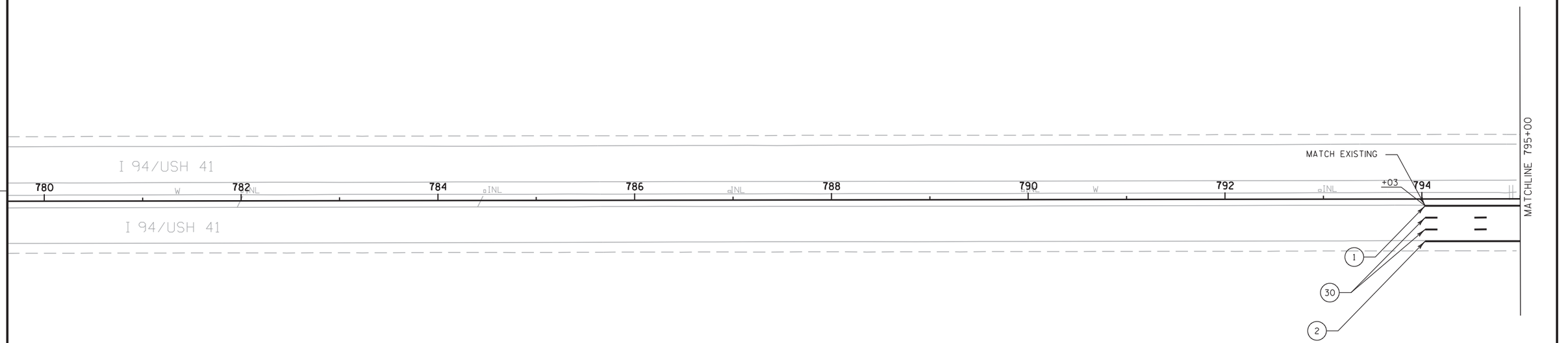
- DISTRIBUTION CENTER
- CID (CABLE IN DUCT, 4-#4AWG UNLESS OTHERWISE SHOWN)
- CONDUIT - 2" UNLESS OTHERWISE SHOWN
- LIGHT POLE, ARM MOUNTED LUMINAIRE
- CONDUIT STUBOUT
- PULLBOX 24" x 42"
- PULLBOX 24" x 36"
- C.I.M. CENTER IN MEDIAN
- MUNICIPAL LIGHT POLE
- UDL (UNDER DECK LUMINAIRE)
- JUNCTION BOX

LIGHTING PLAN DESIGNED BY
WISDOT SE REGION 6/13 DATE

SHEET 2 OF 2

PROJECT NO: 1033-02-72	HWY: IH 94	COUNTY: RACINE	LIGHTING PLAN - SCHEMATIC	SHEET 139	E

2



PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

(4) PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

(6) PAVEMENT MARKING EPOXY 8-INCH (CHANNELIZING WHITE)

(7) PAVEMENT MARKING STOPLINE EPOXY 18-INCH (WHITE)

(8) PAVEMENT MARKING STOPLINE EPOXY 24-INCH (WHITE)

(13) PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)

(14) PAVEMENT MARKING WORDS EPOXY (WHITE)

(16) PAVEMENT MARKING ARROWS EPOXY TYPE 2

(29) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)

(30) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH

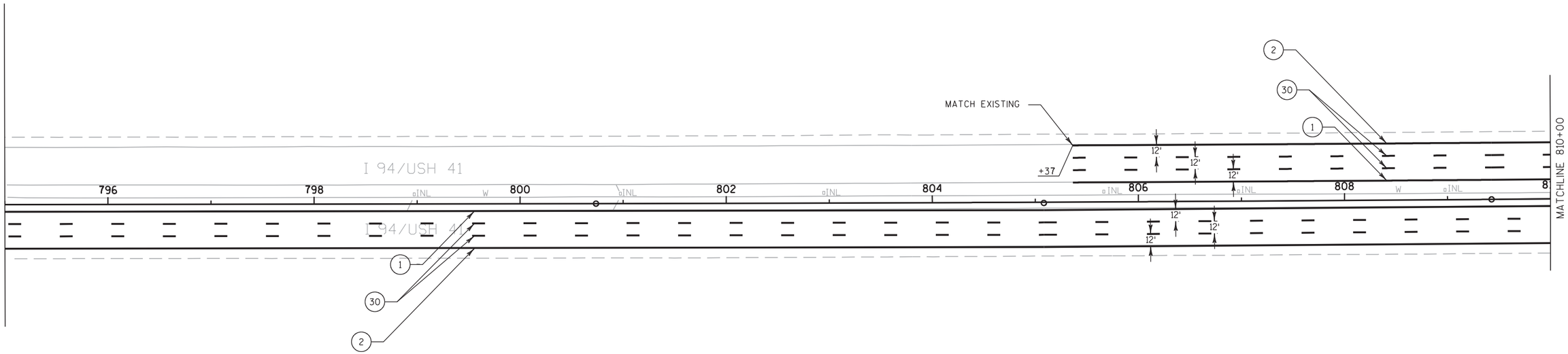
(39) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

⊥ SINGLE DELINEATOR (WHITE)

± DOUBLE DELINEATOR (WHITE)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PAVEMENT MARKING	SHEET	E

2



PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

(4) PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

(6) PAVEMENT MARKING EPOXY 8-INCH (CHANNELIZING WHITE)

(7) PAVEMENT MARKING STOPLINE EPOXY 18-INCH (WHITE)

(8) PAVEMENT MARKING STOPLINE EPOXY 24-INCH (WHITE)

(13) PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)

(14) PAVEMENT MARKING WORDS EPOXY (WHITE)

(16) PAVEMENT MARKING ARROWS EPOXY TYPE 2

(29) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)

(30) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH

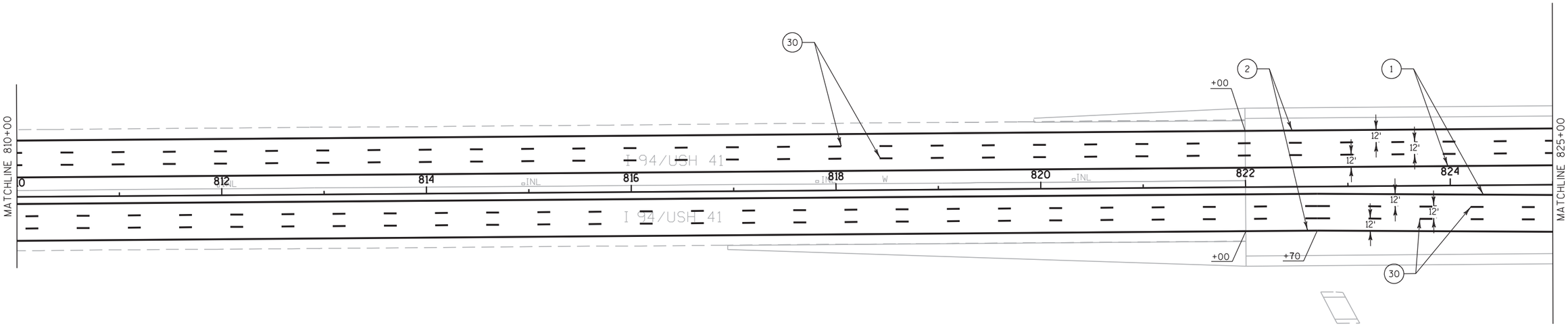
(39) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

⊥ SINGLE DELINEATOR (WHITE)

± DOUBLE DELINEATOR (WHITE)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PAVEMENT MARKING	SHEET	E

2



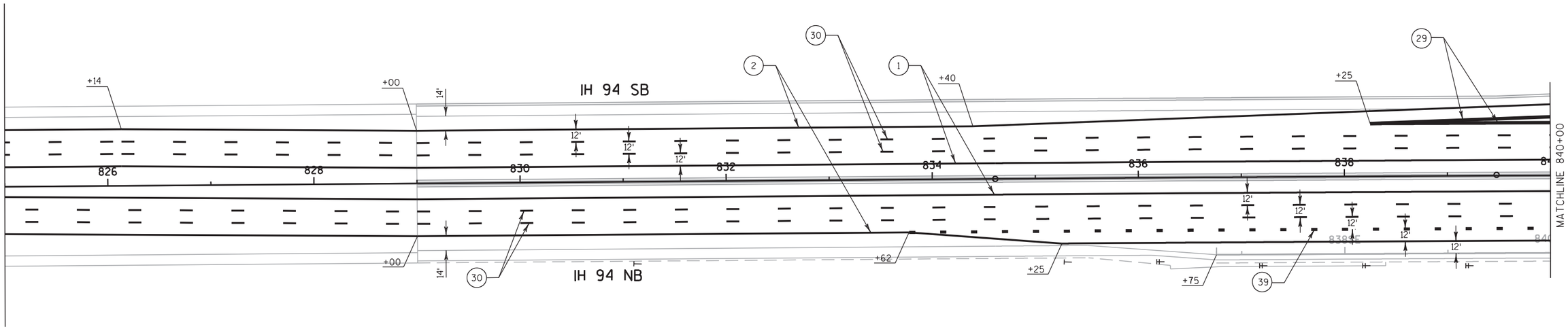
PAVEMENT MARKING LEGEND

1	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3	PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4	PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6	PAVEMENT MARKING EPOXY 8-INCH (CHANNELIZING WHITE)
7	PAVEMENT MARKING STOPLINE EPOXY 18-INCH (WHITE)
8	PAVEMENT MARKING STOPLINE EPOXY 24-INCH (WHITE)
13	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
14	PAVEMENT MARKING WORDS EPOXY (WHITE)
16	PAVEMENT MARKING ARROWS EPOXY TYPE 2
29	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)
30	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH
39	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
⊥	SINGLE DELINEATOR (WHITE)
±	DOUBLE DELINEATOR (WHITE)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PAVEMENT MARKING	SHEET	E

2

N



PAVEMENT MARKING LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
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⊥ SINGLE DELINEATOR (WHITE)

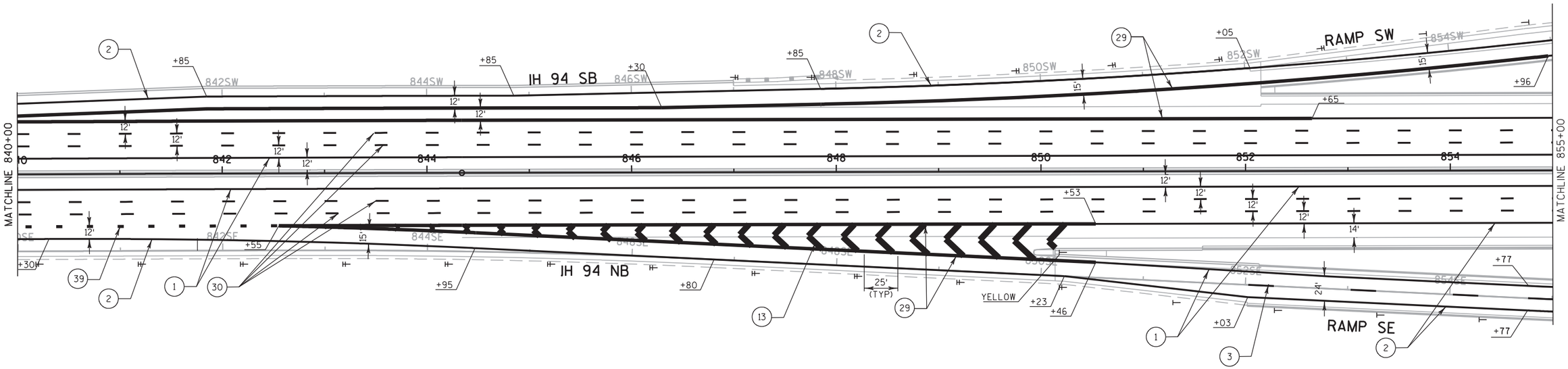
± DOUBLE DELINEATOR (WHITE)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PAVEMENT MARKING	SHEET	E

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2

N



PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

(4) PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

(6) PAVEMENT MARKING EPOXY 8-INCH (CHANNELIZING WHITE)

(7) PAVEMENT MARKING STOPLINE EPOXY 18-INCH (WHITE)

(8) PAVEMENT MARKING STOPLINE EPOXY 24-INCH (WHITE)

(13) PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)

(14) PAVEMENT MARKING WORDS EPOXY (WHITE)

(16) PAVEMENT MARKING ARROWS EPOXY TYPE 2

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(30) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH

(39) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

⊥ SINGLE DELINEATOR (WHITE)

± DOUBLE DELINEATOR (WHITE)

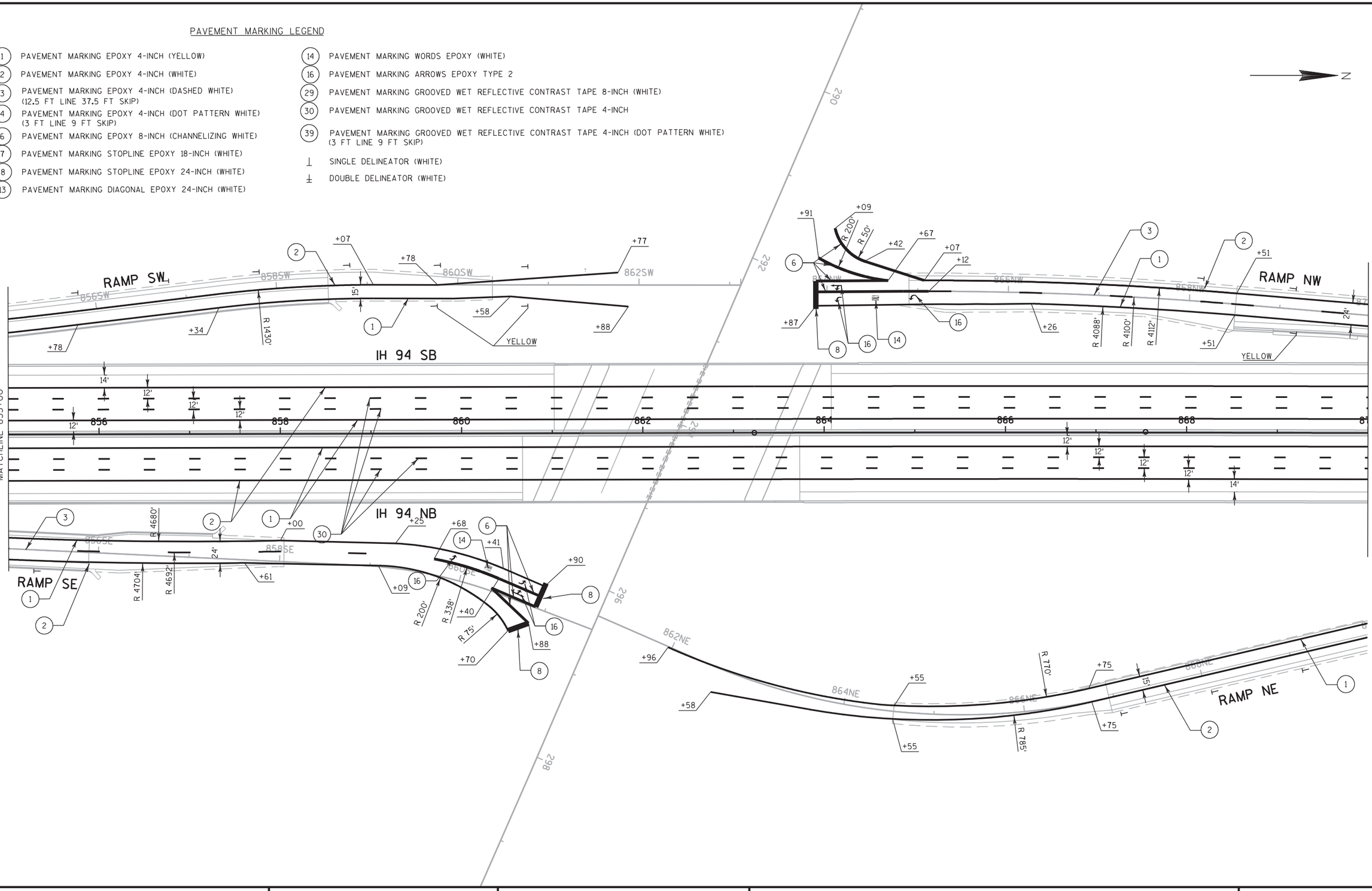
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PAVEMENT MARKING	SHEET	E

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WISDOT/CADDS SHEET 42

2

PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
(4) PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
(6) PAVEMENT MARKING EPOXY 8-INCH (CHANNELIZING WHITE)
(7) PAVEMENT MARKING STOPLINE EPOXY 18-INCH (WHITE)
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(39) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
⊥ SINGLE DELINEATOR (WHITE)
⊥⊥ DOUBLE DELINEATOR (WHITE)

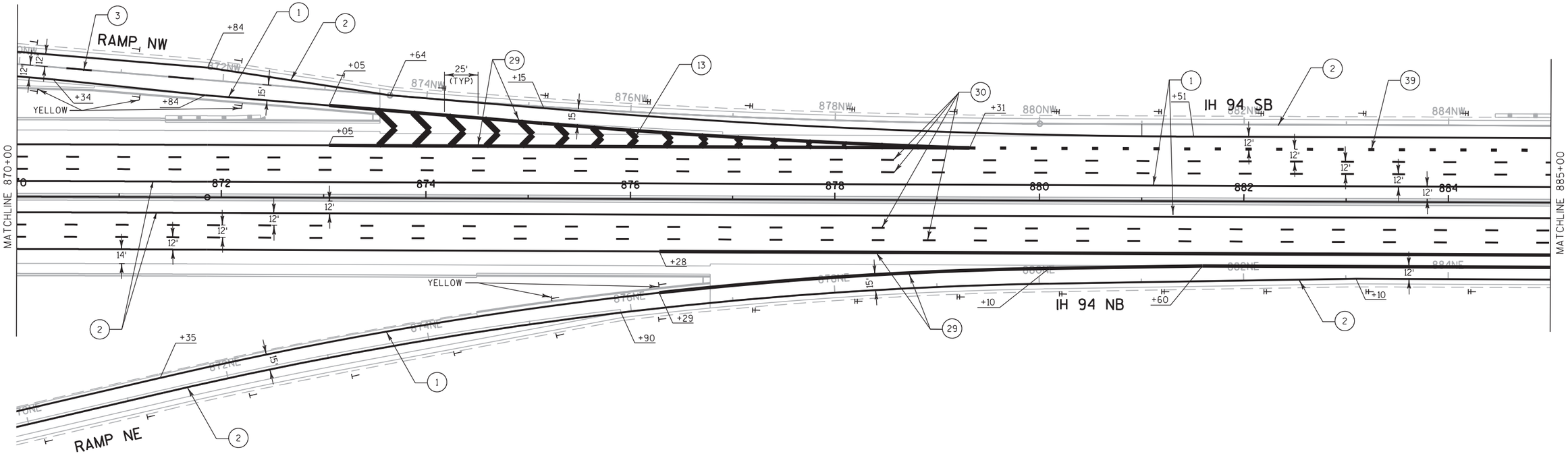


PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PAVEMENT MARKING	SHEET	E

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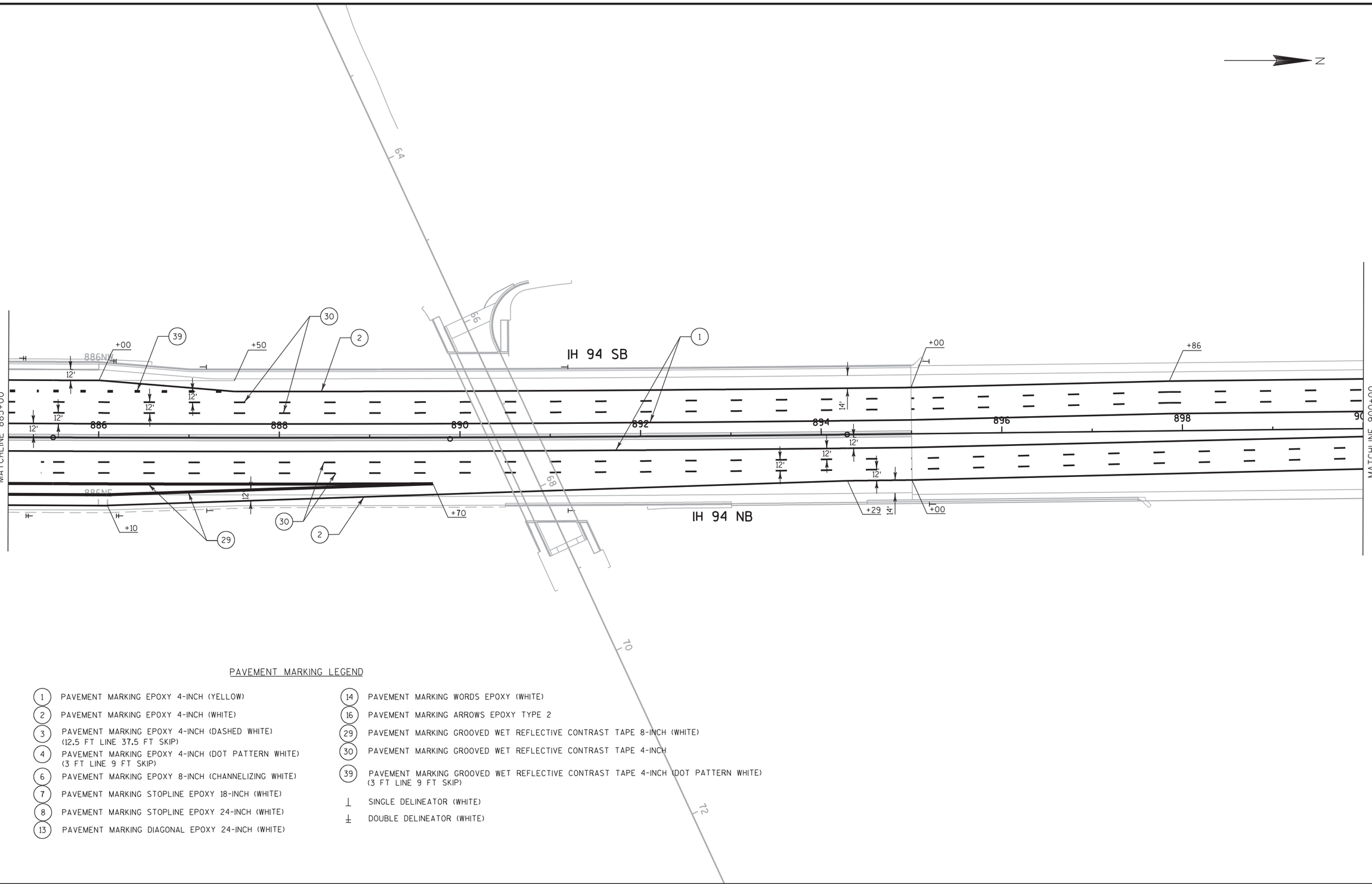


PAVEMENT MARKING LEGEND

1	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3	PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
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⊥	SINGLE DELINEATOR (WHITE)
±	DOUBLE DELINEATOR (WHITE)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PAVEMENT MARKING	SHEET	E

2



PAVEMENT MARKING LEGEND

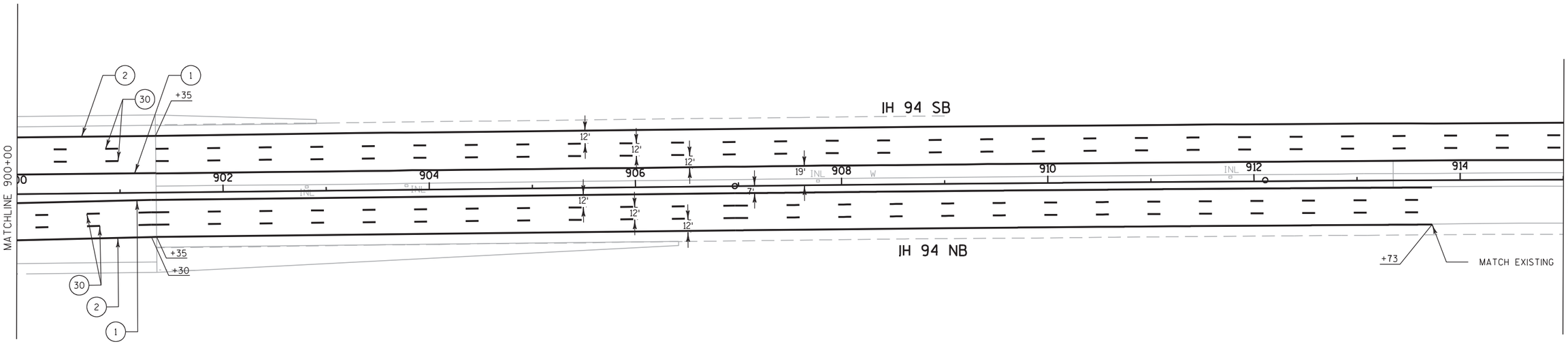
(1)	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
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(3)	PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
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(39)	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
⊥	SINGLE DELINEATOR (WHITE)
±	DOUBLE DELINEATOR (WHITE)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PAVEMENT MARKING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\024508_pm.dgn PLOT DATE : 31-JUL-2013 22:44 PLOT BY : MSCD1S PLOT NAME : 024508_pm PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2



PAVEMENT MARKING LEGEND

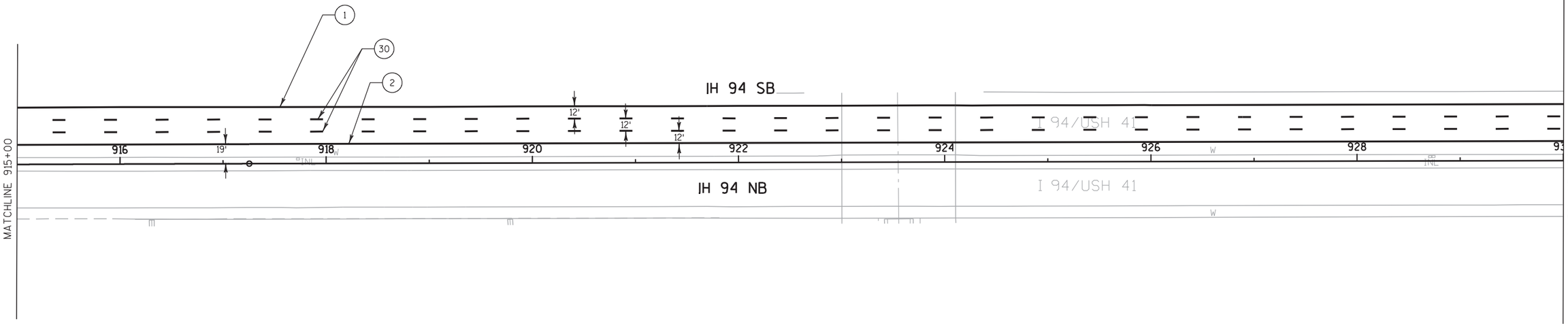
1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
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⊥ SINGLE DELINEATOR (WHITE)

⊥ DOUBLE DELINEATOR (WHITE)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PAVEMENT MARKING	SHEET	E

2



PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

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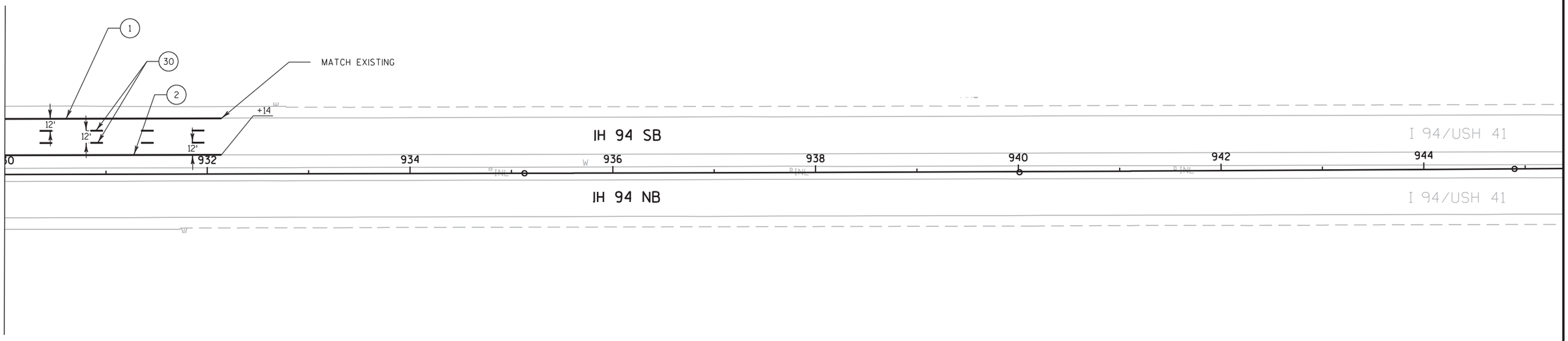
(39) PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

⊥ SINGLE DELINEATOR (WHITE)

± DOUBLE DELINEATOR (WHITE)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PAVEMENT MARKING	SHEET	E

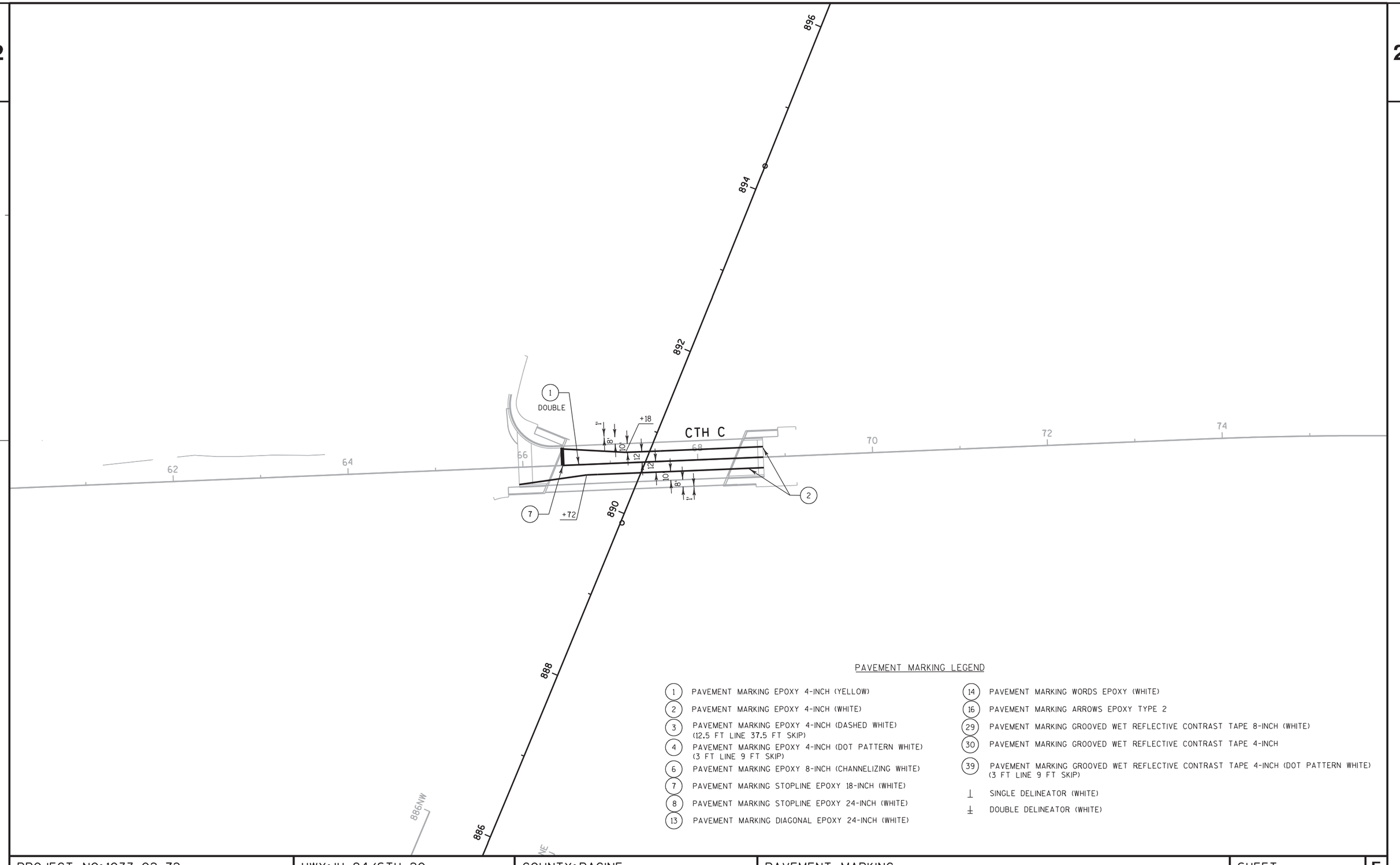
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PAVEMENT MARKING LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
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(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
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± DOUBLE DELINEATOR (WHITE)

2



PAVEMENT MARKING LEGEND

1	PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
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±	DOUBLE DELINEATOR (WHITE)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PAVEMENT MARKING	SHEET	E

2

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NOTE

SIGNS TO PLACED IN STAGE 1A. SEE TRAFFIC CONTROL DETAILS FOR ADDITIONAL INFORMATION.

TOWN OF YORKVILLE

VILLAGE OF MOUNT PLEASANT

STH 20

GRANDVIEW PARKWAY

WEST FRONTAGE ROAD

WEST FRONTAGE ROAD

EAST FRONTAGE ROAD

KILBOURN DRIVE

CTH C

IH 94

IH 94

RAMP SW

RAMP NW

RAMP SE

RAMP NE

820 830 840 850 860 870 880 890 900

840SE 850SE 860SE 870NE 880NE 886NE

850SW 860SW 870NW 880NW 886NW

50 51 52

290 290 290 300 310 320

EXIT 333
20
RACINE
MT PLEASANT

GAS EXIT 333
CITGO MOBIL
PETRO SHELL
KWIK TRIP

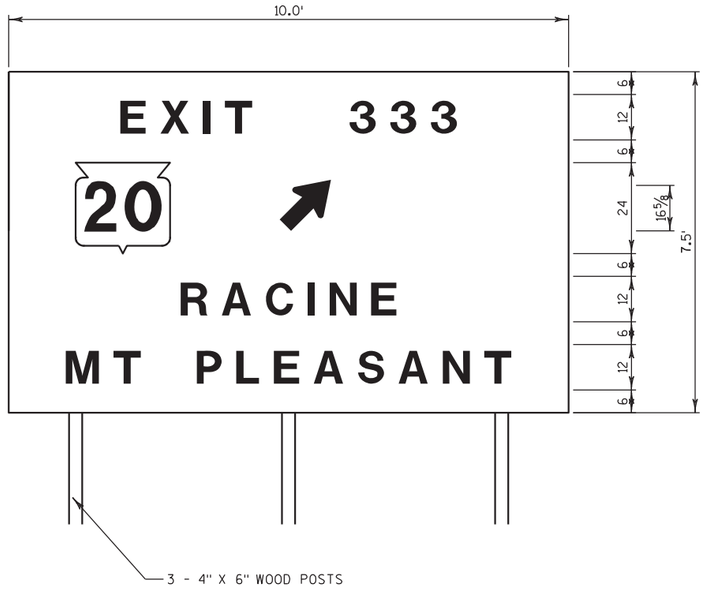
EXIT 333
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RACINE
MT PLEASANT

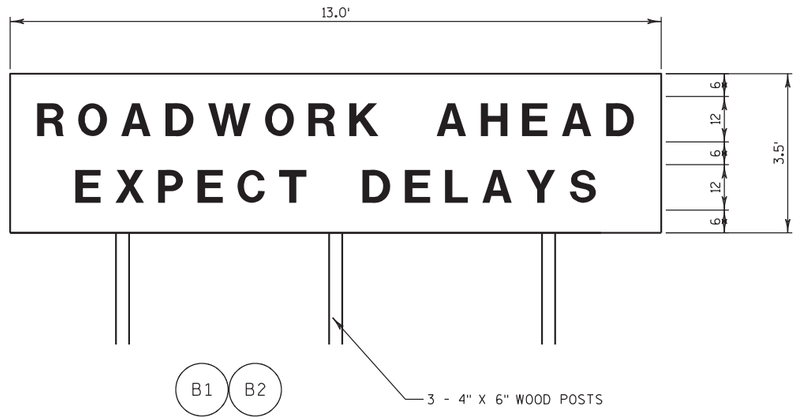
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	FIXED MESSAGE SIGN - LAYOUT	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\025100_tc.dgn PLOT DATE : 31-JUL-2013 22:44 PLOT BY : MSCD1S PLOT NAME : 025100_tc PLOT SCALE : 600:1

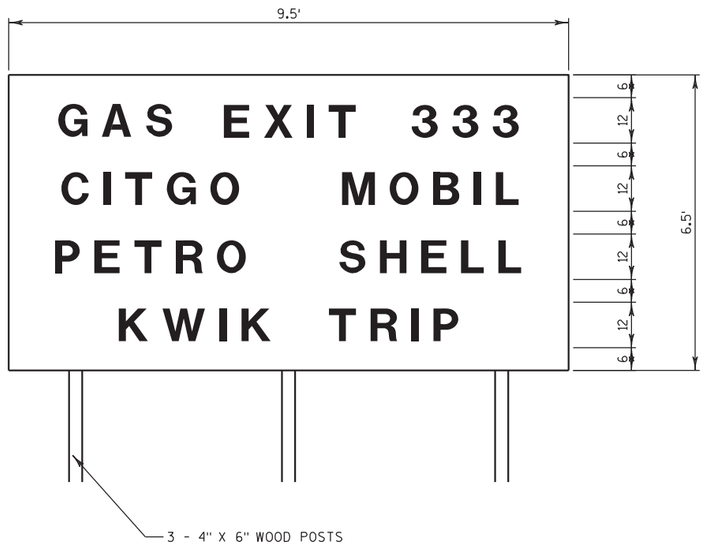
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50
51





52

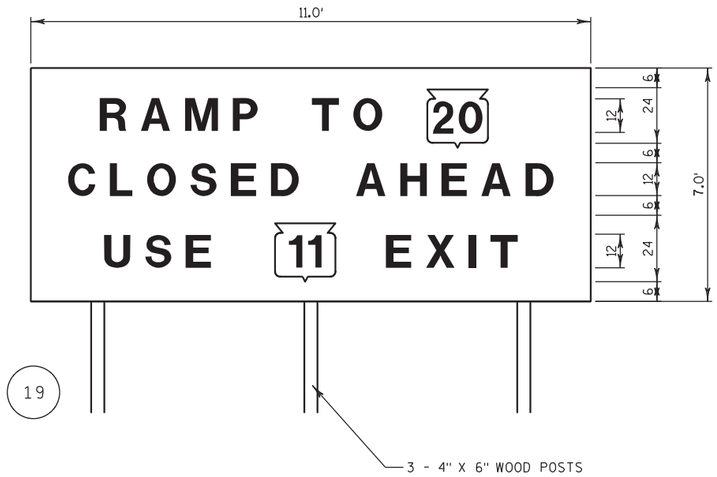


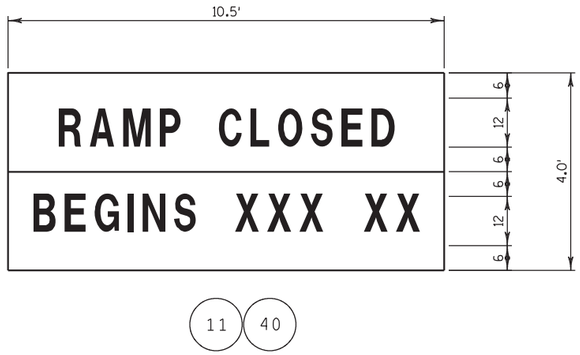
FIXED MESSAGE SIGNS

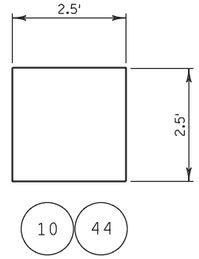
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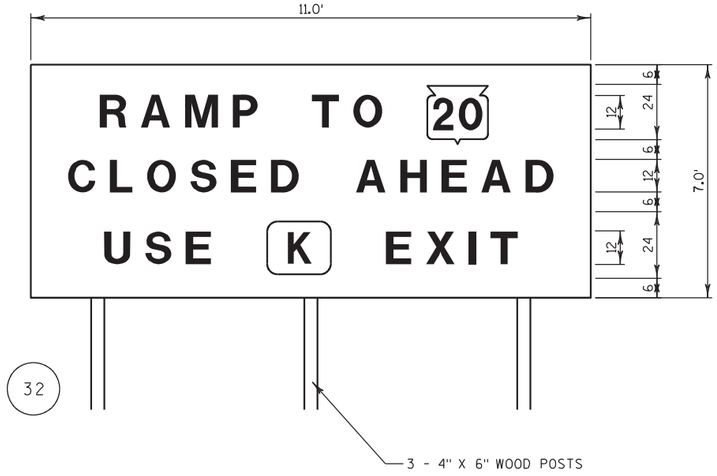
1. ALL SIGNS TO HAVE STANDARD REFLECTIVE SHEETING - REFERENCE: "WISDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," LATEST EDITION.
2. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE SIGNING AND MARKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.
3. ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"x6"). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN. STEEL POSTS (2"X2") MAY BE USED FOR SIGNS ON SURFACE STREETS. SIGNS WHERE NO POSTS ARE SHOWN TO BE MOUNTED ON EXISTING SIGNS.
4. POSTS SHALL MEET THE BREAKAWAY REQUIREMENTS OF SECTION 643.2.9.1 OF THE STANDARD SPECIFICATIONS AND SIGN PLATE A4-11.
5. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "TRAFFIC CONTROL SIGNS FIXED MESSAGE".
6. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND UNLESS OTHERWISE NOTED.
7. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS:
   12" CAPS SHALL BE SERIES "D"
   6" CAPS SHALL BE SERIES "C"
8. BEGIN XXX XX SIGNS SHALL BE SEPARATE PANELS, BUT SHALL BE CONSIDERED AS PART OF THE SIGN AND SHOULD BE REMOVED OR COVERED AFTER THEIR EFFECTIVE DATE. THE MONTH AND DAY SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD.
9. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.
10. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 637.2.1.2.
11. BEGIN XXX XX SIGNS TO BE IN PLACE 10 DAYS PRIOR TO CONSTRUCTION.
12. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

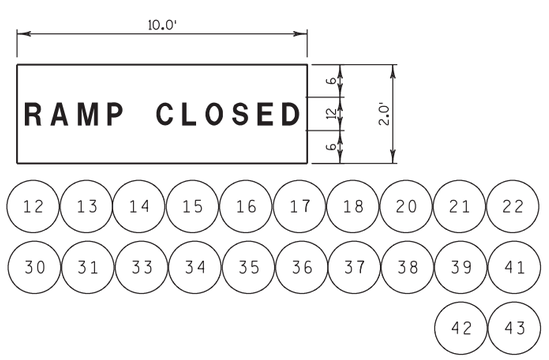
(XXX) = SIGN NUMBER











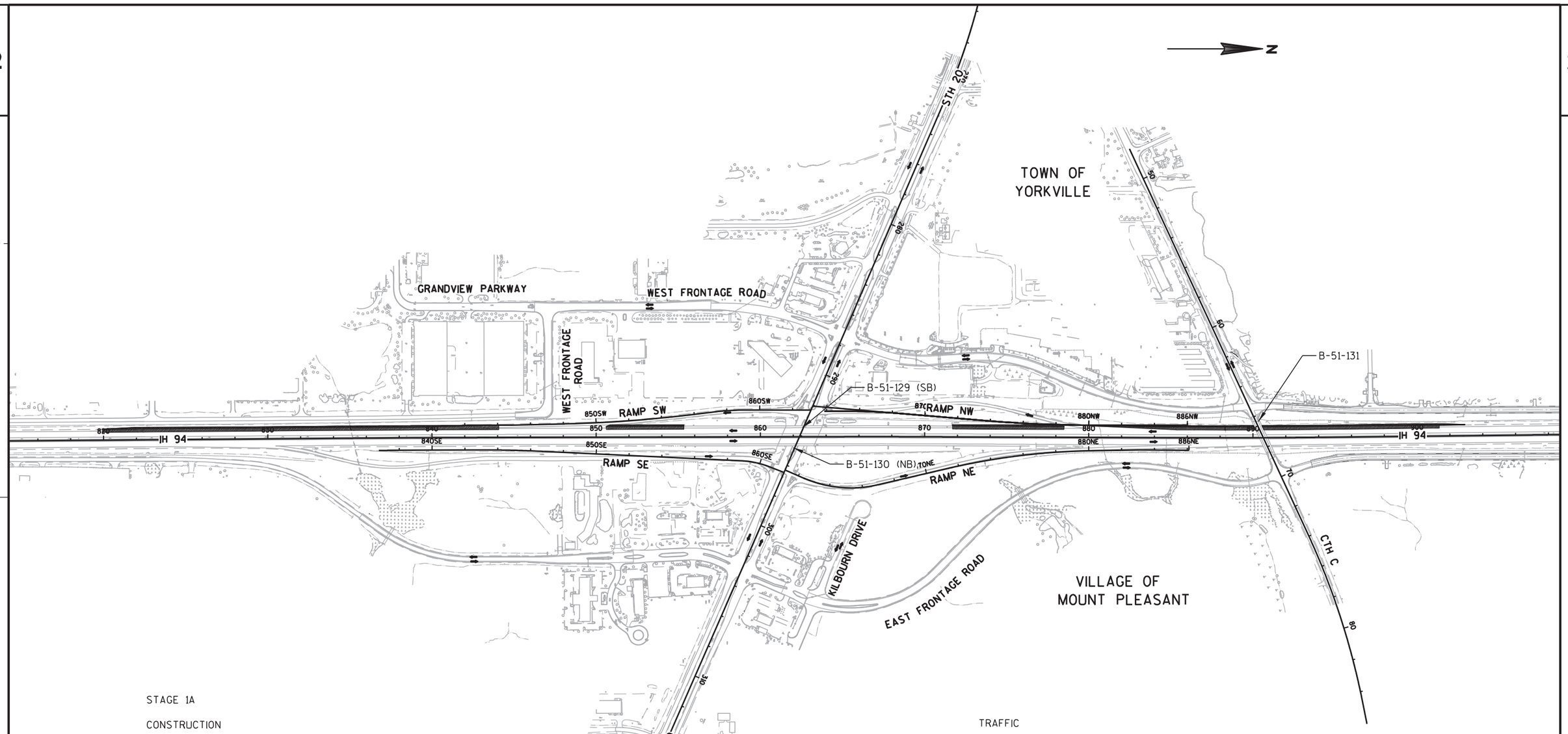
FIXED MESSAGE SIGNS

NOTES

1. ALL SIGNS TO HAVE STANDARD REFLECTIVE SHEETING - REFERENCE: "WISDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," LATEST EDITION.
2. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE SIGNING AND MARKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.
3. ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"x6"). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN. STEEL POSTS (2"X2") MAY BE USED FOR SIGNS ON SURFACE STREETS. SIGNS WHERE NO POSTS ARE SHOWN TO BE MOUNTED ON EXISTING SIGNS.
4. POSTS SHALL MEET THE BREAKAWAY REQUIREMENTS OF SECTION 643.2.9.1 OF THE STANDARD SPECIFICATIONS AND SIGN PLATE A4-11.
5. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "TRAFFIC CONTROL SIGNS FIXED MESSAGE".
6. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND UNLESS OTHERWISE NOTED.
7. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS:
   12" CAPS SHALL BE SERIES "D"
   6" CAPS SHALL BE SERIES "C"
8. BEGIN XXX XX SIGNS SHALL BE SEPARATE PANELS, BUT SHALL BE CONSIDERED AS PART OF THE SIGN AND SHOULD BE REMOVED OR COVERED AFTER THEIR EFFECTIVE DATE. THE MONTH AND DAY SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD.
9. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.
10. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 637.2.1.2.
11. BEGIN XXX XX SIGNS TO BE IN PLACE 10 DAYS PRIOR TO CONSTRUCTION.
12. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

(XXX) = SIGN NUMBER

2



STAGE 1A

CONSTRUCTION

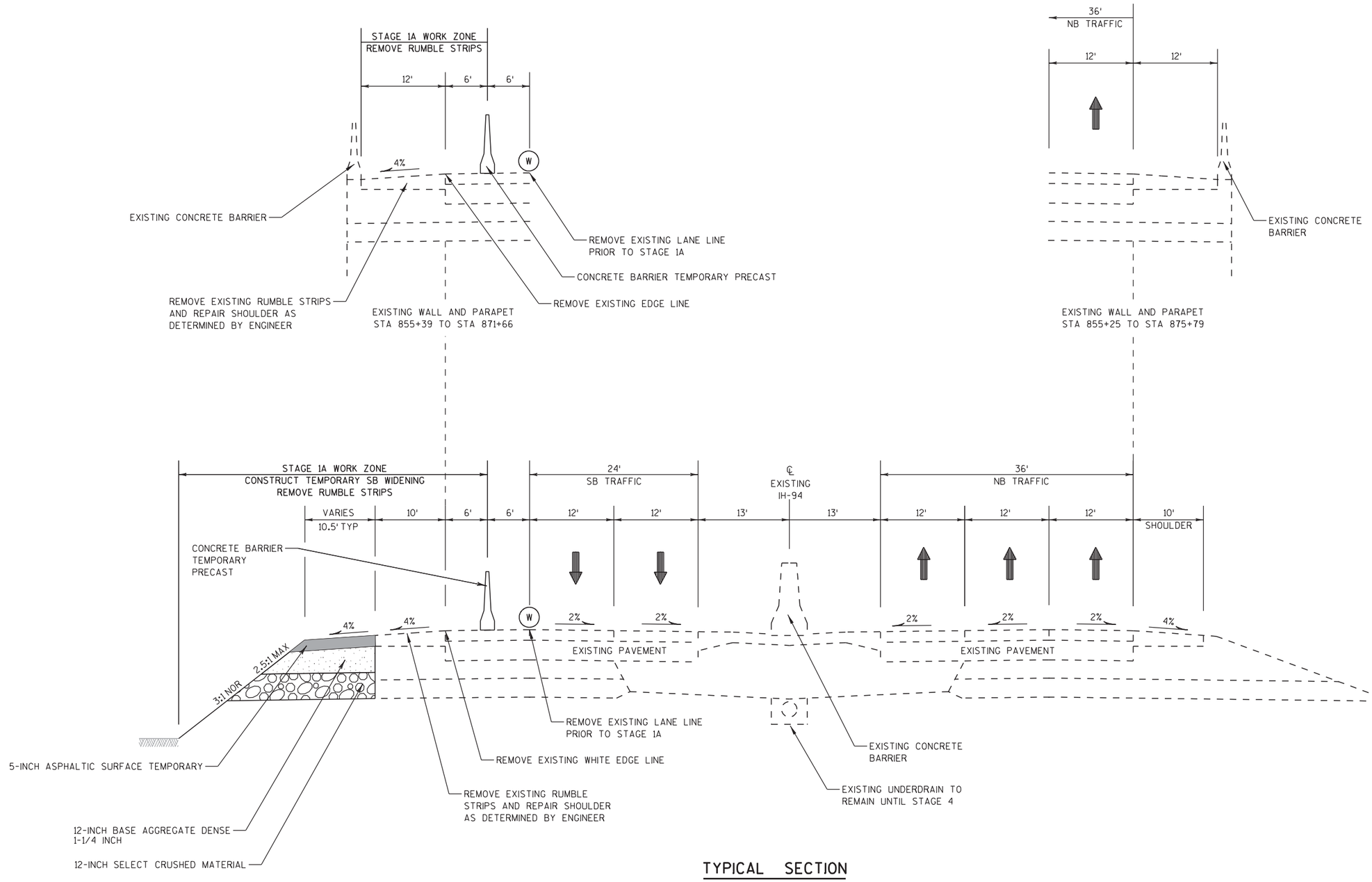
COMPLETE TEMPORARY WIDENING OF SOUTHBOUND IH 94.
REMOVE RUMBLE STRIPS
REPAIR OUTSIDE SOUTHBOUND SHOULDER

TRAFFIC

IH 94 - OUTSIDE SOUTHBOUND LANE CLOSED TO TRAFFIC.
IH 94 RAMPS - OPEN TO TRAFFIC.
STH 20 - OPEN TO TRAFFIC.
CTH C - OPEN TO TRAFFIC.
EAST FRONTAGE ROAD - OPEN TO TRAFFIC.
WEST FRONTAGE ROAD - OPEN TO TRAFFIC.

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CONSTRUCTION STAGING OVERVIEW: STAGE 1A	SHEET	E

2



TYPICAL SECTION
STAGE 1A
IH-94

STA 829+00 TO STA 895+00

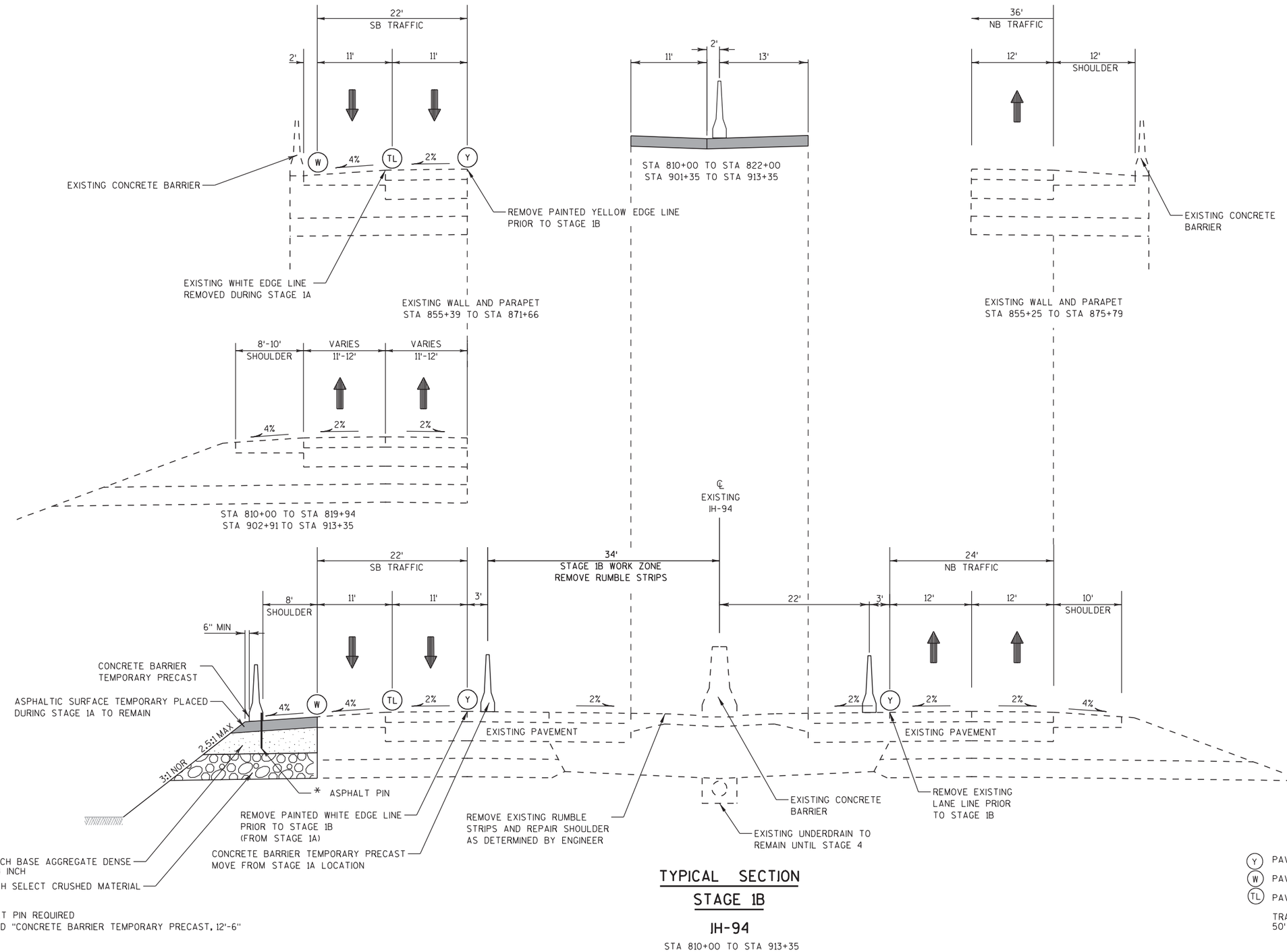
LEGEND

TRAFFIC CONTROL DRUMS SPACED AT
50' CENTER TO CENTER SPACING

(W) PAVEMENT MARKING PAINT 4-INCH (WHITE)

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\026000a_s1a.dgn PLOT DATE : 01-AUG-2013 10:47 PLOT BY : MSCD1S PLOT NAME : 026000a_s1a0 PLOT SCALE : 15:1



* ASPHALT PIN REQUIRED
SEE SDD "CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

LEGEND

(Y) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
(W) PAVEMENT MARKING PAINT 4-INCH (WHITE)
(TL) PAVEMENT MARKING PAINT, LANE LINE

TRAFFIC CONTROL DRUMS SPACED AT
50' CENTER TO CENTER SPACING

TYPICAL SECTION
STAGE 1B
IH-94
STA 810+00 TO STA 913+35

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET	E

2

N

1255
769.280

END
ROAD WORK
G20-2A
48" X 24"

WEST FRONTAGE ROAD

SIGN

500'

817+44
55.00' LT

150'

818+94
43.00' LT

100'

BEGIN TEMPORARY WIDENING
STA 819+94

REMOVE DELINEATORS

REMOVE RUMBLE STRIPS

CONSTRUCT TEMPORARY WIDENING

INL

MH

W

IH 94 SB

CONCRETE BARRIER
TEMPORARY PRECAST

810 812 814 816 818 820 822 824

R/L IH 94

IH 94 NB

MATCHLINE 825+00

SIGN

SIGN

EAST FRONTAGE ROAD

LEGEND

- TEMPORARY PAVEMENT
- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- PCMS PORTABLE CHANGABLE MESSAGE SIGN
- TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTORS)

- (Y) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (W) PAVEMENT MARKING PAINT 4-INCH (WHITE)
- (W8) PAVEMENT MARKING PAINT 8-INCH (WHITE)
- (WL) PAVEMENT MARKING PAINT 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1A CONSTRUCTION	SHEET	E

2

N

REMOVE DELINEATORS

REMOVE RUMBLE STRIPS

CONSTRUCT TEMPORARY WIDENING

WEST FRONTAGE ROAD

IH 94 SB

IH 94 NB

EAST FRONTAGE ROAD

RAMP SE

CONCRETE BARRIER TEMPORARY PRECAST

R/L IH 94

MATCHLINE 825+00

MATCHLINE 840+00

826 828 830 832 834 836 838 838SE

INL SIGN WALLS W

LEGEND

- TEMPORARY PAVEMENT
- CONSTRUCTION THIS STAGE
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- POST MOUNTED TRAFFIC CONTROL SIGN
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1A CONSTRUCTION	SHEET	E

2

2

N

FILLER CAPS

SIGN

INL

REMOVE DELINEATORS

REMOVE RUMBLE STRIPS

CONSTRUCT TEMPORARY WIDENING

BEGIN TEMPORARY WIDENING
STA 850+61.44

END TEMPORARY WIDENING
STA 844+06.86

WEST FRONTAGE ROAD

CRASH CUSHION TEMPORARY

W

842SW

844SW

844+37
43.00'LT

846SW

848SW

850SW

852SW

854SW

RAMP SW

849+45
48.00'LT

845+54
55.95'LT

500'

CONCRETE BARRIER TEMPORARY PRECAST

IH 94 SB

MATCHLINE 840+00

840

842

844

846

848

850

852

854

MATCHLINE 855+00

R/L IH 94

IH 94 NB

842SE

844SE

846SE

848SE

850SE

852SE

854SE

RAMP SE

SIGN

INL

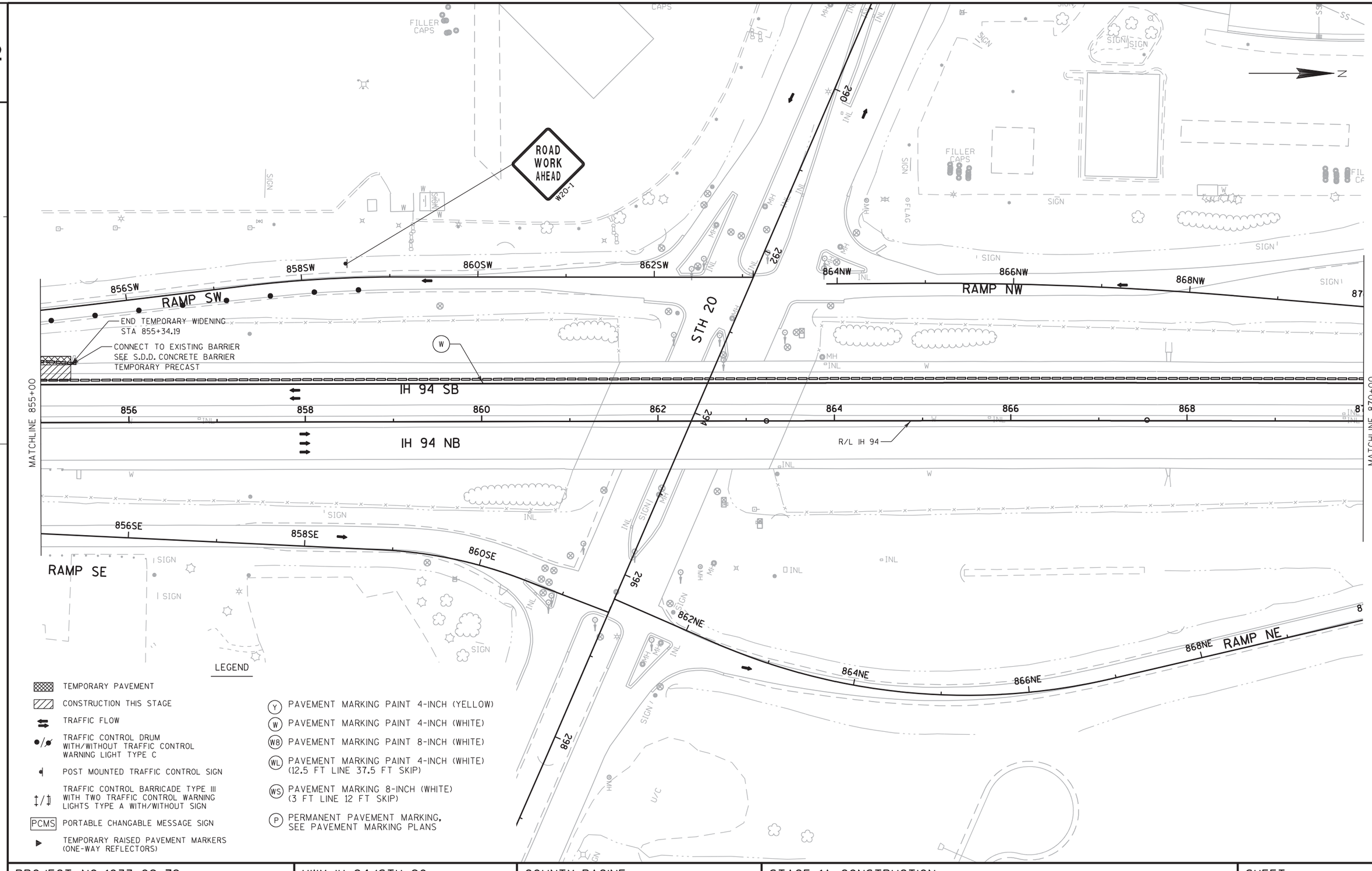
LEGEND

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- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- CC CRASH CUSHION TEMPORARY

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1A CONSTRUCTION	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\026006_s1a.dgn PLOT DATE : 31-JUL-2013 22:45 PLOT BY : MSCD1S PLOT NAME : 026006_s1a PLOT SCALE : 100:1

2



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1A CONSTRUCTION	SHEET	E

2

WEST FRONTAGE ROAD

N

REMOVE DELINEATORS

REMOVE RUMBLE STRIPS

CONSTRUCT TEMPORARY WIDENING

RAMP NW

END ROAD WORK
G20-2A
48" X 24"

END TEMPORARY WIDENING
STA 878+49.81

BEGIN TEMPORARY WIDENING
STA 871+70.70

CRASH CUSHION TEMPORARY

CRASH CUSHION TEMPORARY

BEGIN TEMPORARY WIDENING
STA 880+00.00

870NW 872NW 874NW 876NW 878NW 880NW 882NW 884NW

TAPER 15:1

85'

CC

880+00
69.96'LT

879+34
53.67'LT

879+93
43.00'LT

TAPER 25:1

IH 94 SB

CONCRETE BARRIER
TEMPORARY PRECAST

MATCHLINE 870+00

870 872 874 876 878 880 882 884

R/L IH 94

IH 94 NB

MATCHLINE 885+00

RIPRAP

870NE 872NE 874NE 876NE 878NE 880NE 882NE 884NE

RAMP NE

EAST FRONTAGE ROAD

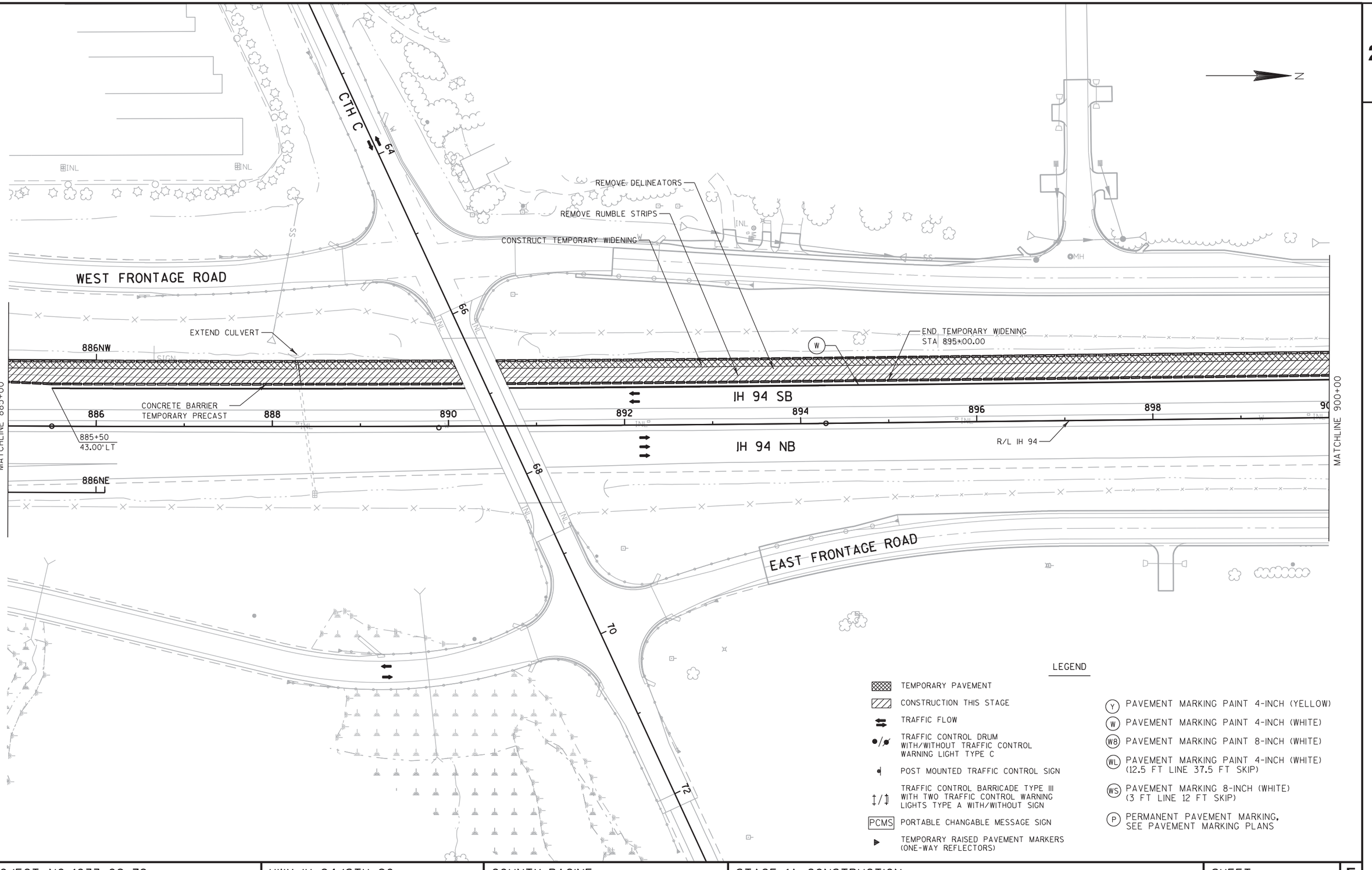
LEGEND

- TEMPORARY PAVEMENT
- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- PCMS PORTABLE CHANGABLE MESSAGE SIGN
- TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTORS)
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- (WL) PAVEMENT MARKING PAINT 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
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- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- CC CRASH CUSHION TEMPORARY

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1A CONSTRUCTION	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\026008_s1a.dgn PLOT DATE : 31-JUL-2013 22:45 PLOT BY : MSCD1S PLOT NAME : 026008_s1a PLOT SCALE : 100:1

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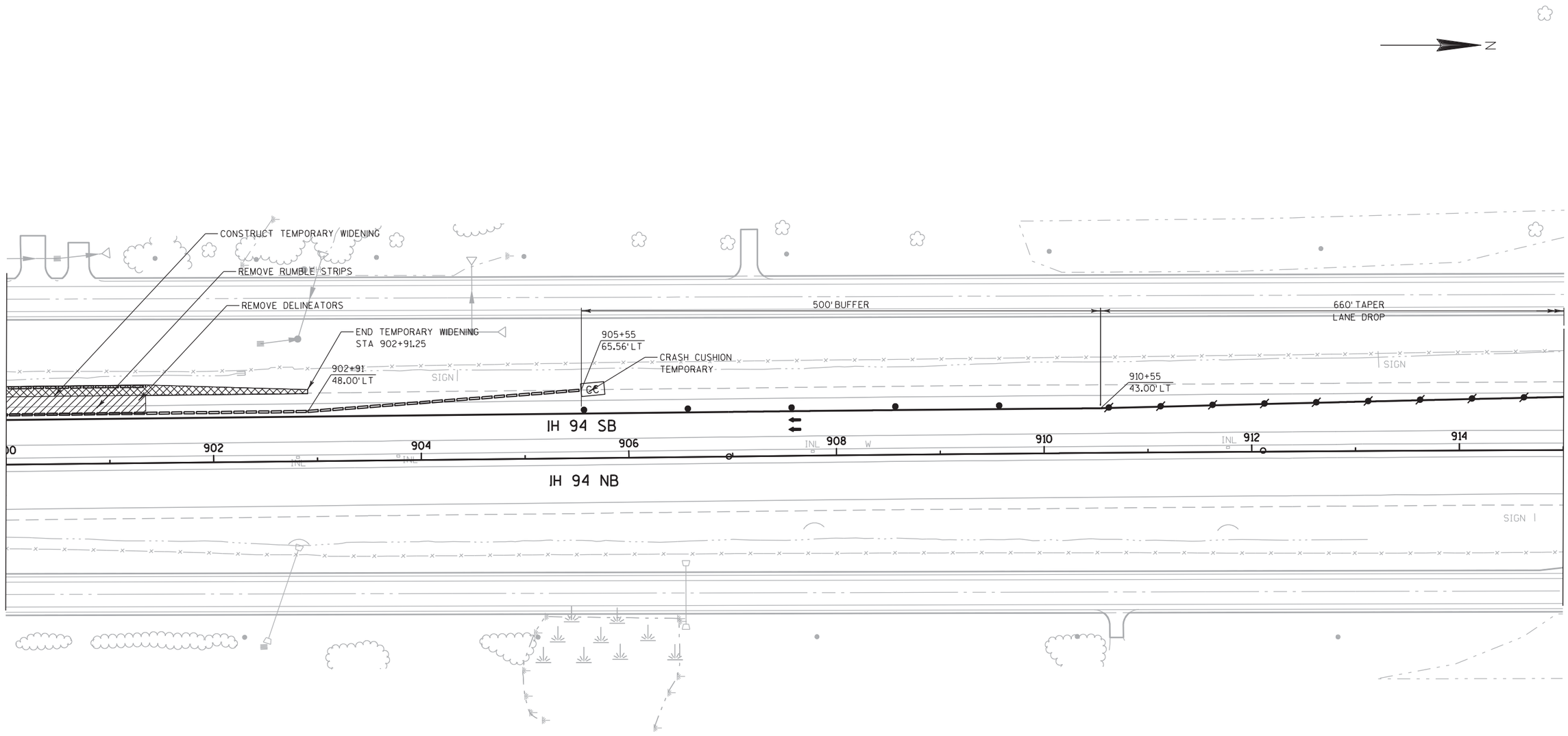


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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1A CONSTRUCTION	SHEET	E

2

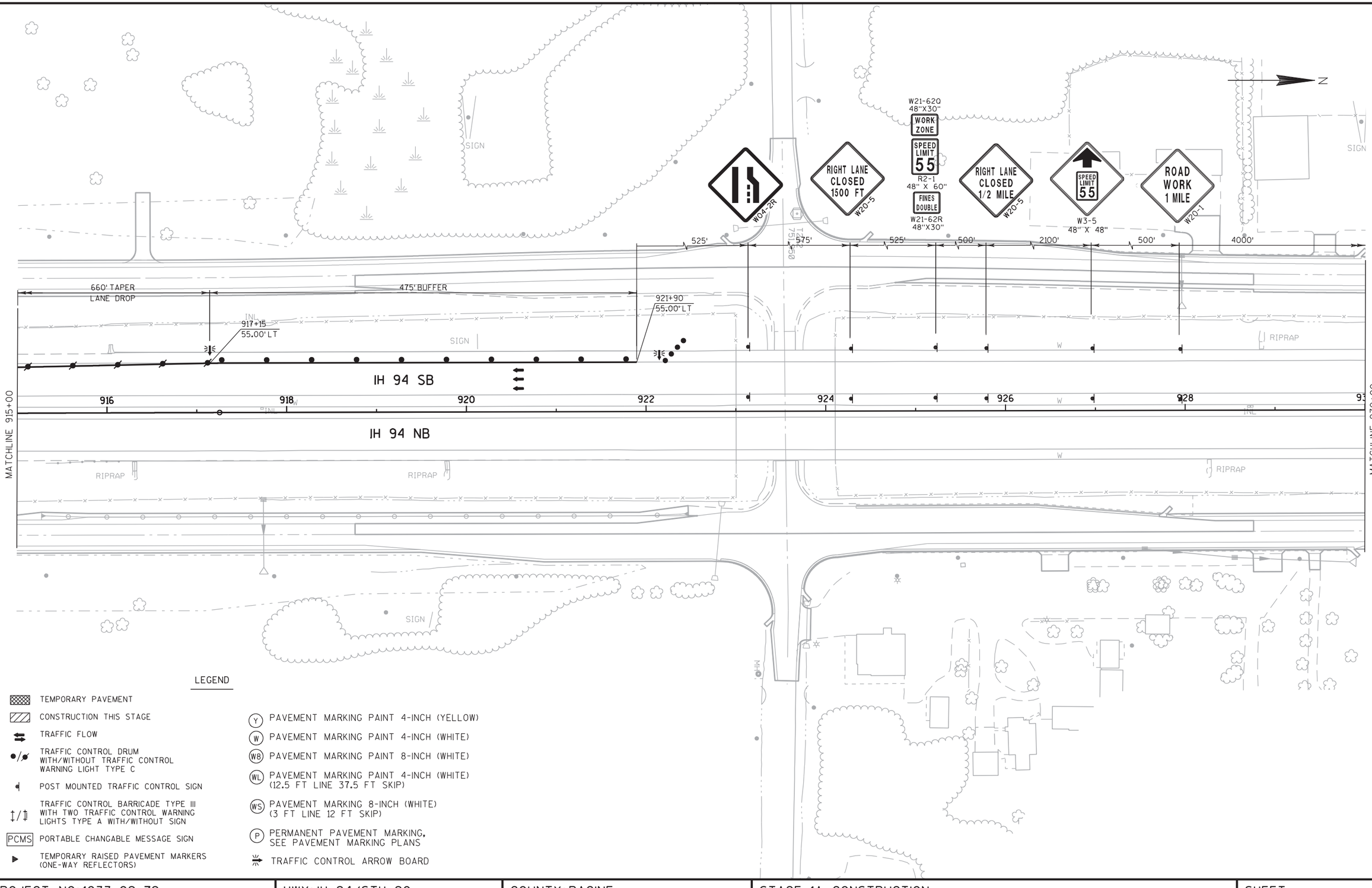


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- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- CC CRASH CUSHION TEMPORARY

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1A CONSTRUCTION	SHEET	E

2

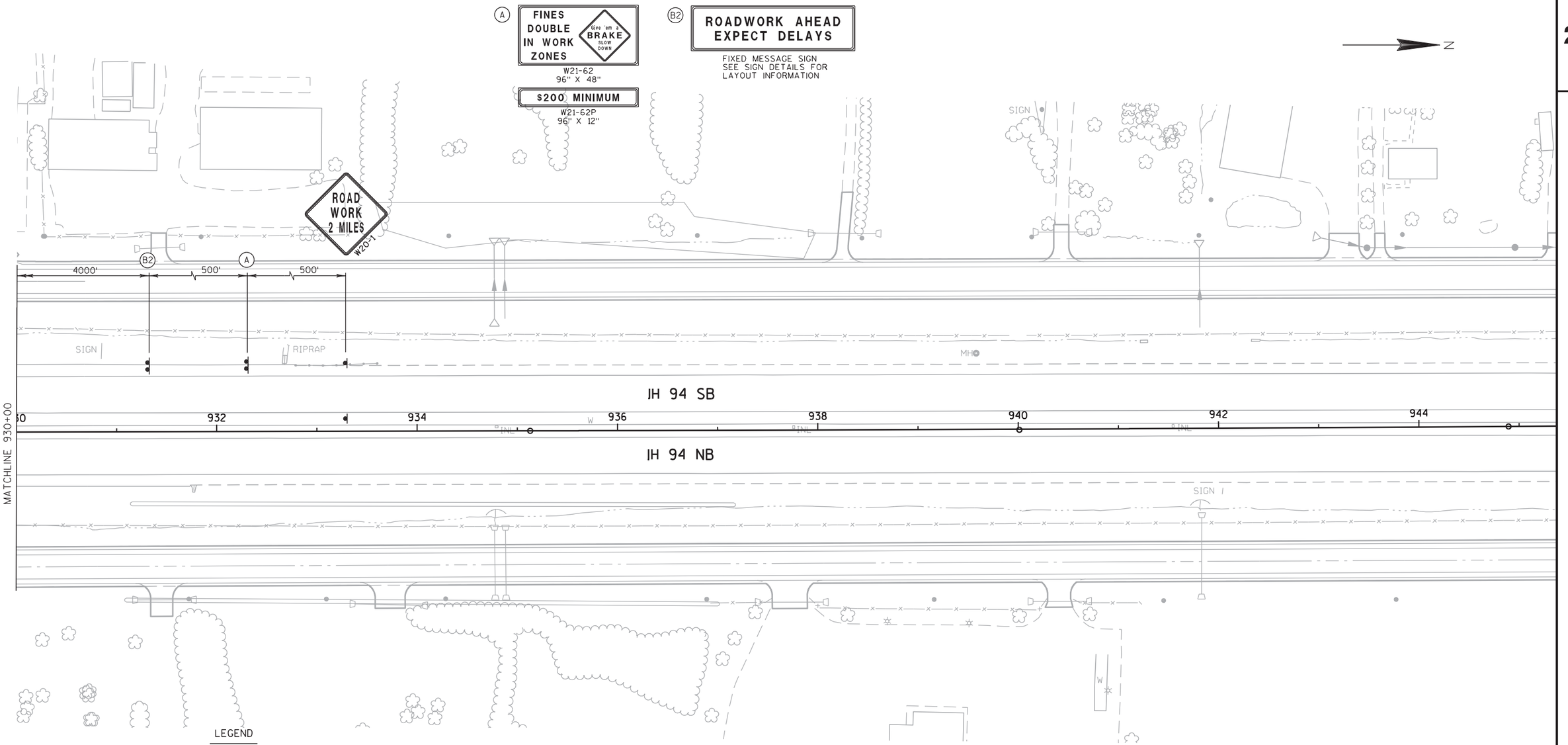


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- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1A CONSTRUCTION	SHEET	E

2



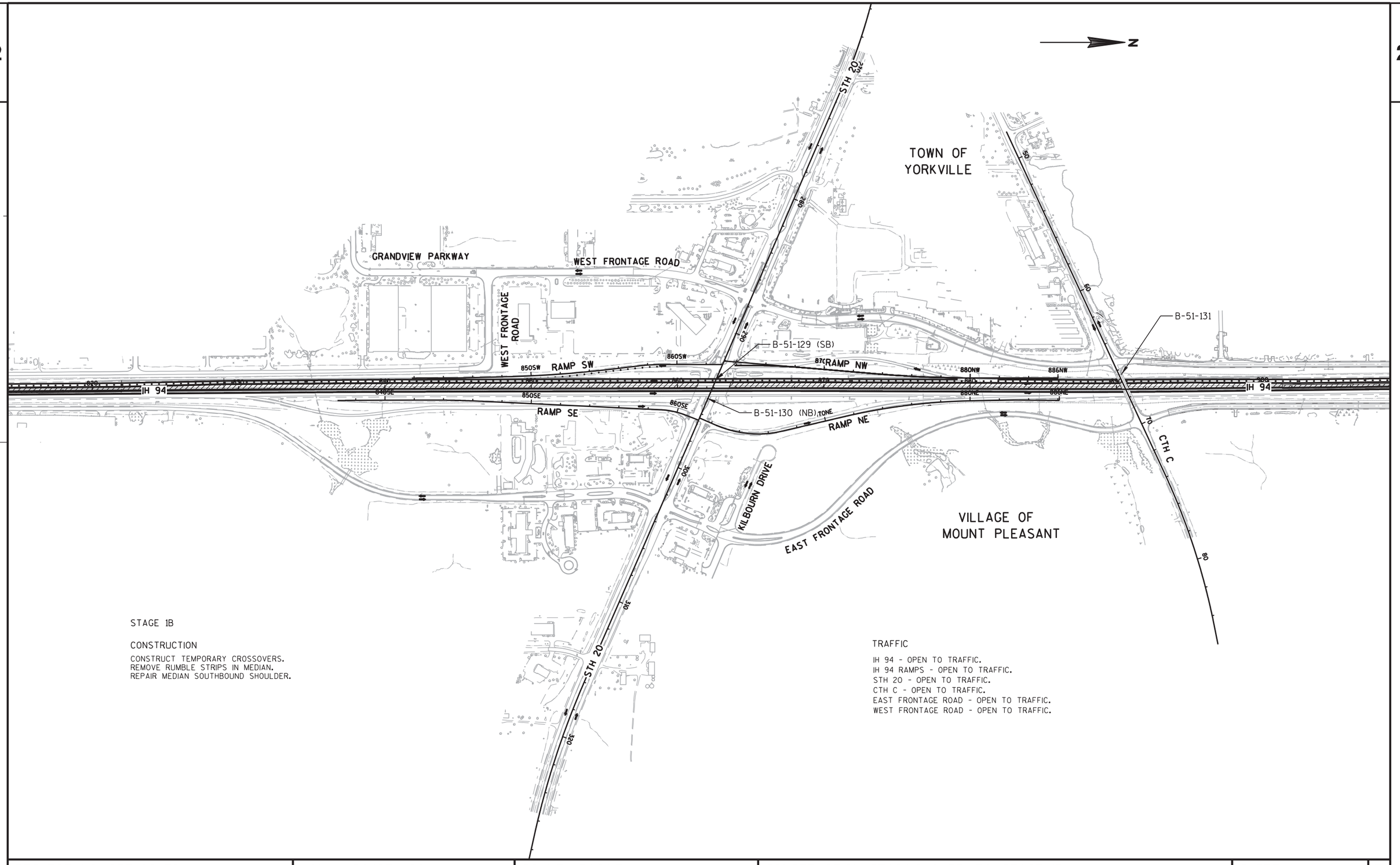
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1A CONSTRUCTION	SHEET	E

2



STAGE 1B

CONSTRUCTION

CONSTRUCT TEMPORARY CROSSOVERS.
REMOVE RUMBLE STRIPS IN MEDIAN.
REPAIR MEDIAN SOUTHBOUND SHOULDER.

TRAFFIC

IH 94 - OPEN TO TRAFFIC.
IH 94 RAMPS - OPEN TO TRAFFIC.
STH 20 - OPEN TO TRAFFIC.
CTH C - OPEN TO TRAFFIC.
EAST FRONTAGE ROAD - OPEN TO TRAFFIC.
WEST FRONTAGE ROAD - OPEN TO TRAFFIC.

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CONSTRUCTION STAGING OVERVIEW: STAGE 1B	SHEET	E

2

2

N

INL

NL

POOL

FOUND

SIGN

SEPTIC

SEPTIC

MH

SIGN

MH

SIGN

SIGN

4 DRUMS
@ 10' SPACING

IH 94 SB

R/L IH 94
790+65
7.00' RT

780 W 782 NL 784 INL 786 INL 788 790 W 792 INL 794

50'
(TYP)

IH 94 NB

MATCHLINE 795+00

SIGN

SIGN

25'

475'
LANE BUFFER

500' 500' 4000' 500' 2100' 500' 525' 575' 1000'

A B1

ROAD WORK 2 MILES W20-1

ROAD WORK 1 MILE W20-1

SPEED LIMIT 55
W3-5
48" X 48"

LEFT LANE CLOSED 1/2 MILE W20-5

W21-62Q
48"X30"
WORK ZONE
SPEED LIMIT 55
R2-1
48" X 60"
FINES DOUBLE
W21-62R
48"X30"

LEFT LANE CLOSED 1500 FT W20-5

W04-2L

EAST FRONTAGE ROAD

MH

LEGEND

- CONSTRUCTION THIS STAGE
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- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- TRAFFIC CONTROL ARROW BOARD

(A) FINES DOUBLE IN WORK ZONES — Give 'em a BRAKE SLOW DOWN
W21-62
96" X 48"

$200 MINIMUM
W21-62P
96" X 12"

(B1) ROADWORK AHEAD EXPECT DELAYS
FIXED MESSAGE SIGN
SEE SIGN DETAILS FOR LAYOUT INFORMATION

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1B CONSTRUCTION	SHEET	E

2

N

SIGN

SPEED LIMIT 65
R2-1
48" X 60"

END ROAD WORK
G20-2A
48" X 24"

300'

500'

150' TAPER
LANE ADD

SIGN

W

Y

WL

MATCHLINE 795+00

795+40
7.00' RT

796

798

INL

W

800

INL

802+00
19.00' RT

802

IH 94 SB

803+50
19.00' LT

INL

804

805+00.00
31.00' LT

INL

806

INL

808

W

INL

MATCHLINE 810+00

IH 94 NB

475'
LANE
BUFFER

1000'

660' TAPER
LANE DROP

SIGN

Y

100'
(TYP)

300' TAPER

STA 807+00
BEGIN REMOVING CONCRETE BARRIER
BEGIN CONCRETE BARRIER TEMPORARY PRECAST
CONNECT TO EXISTING BARRIER
SEE S.D.D. CONCRETE BARRIER TEMPORARY PRECAST

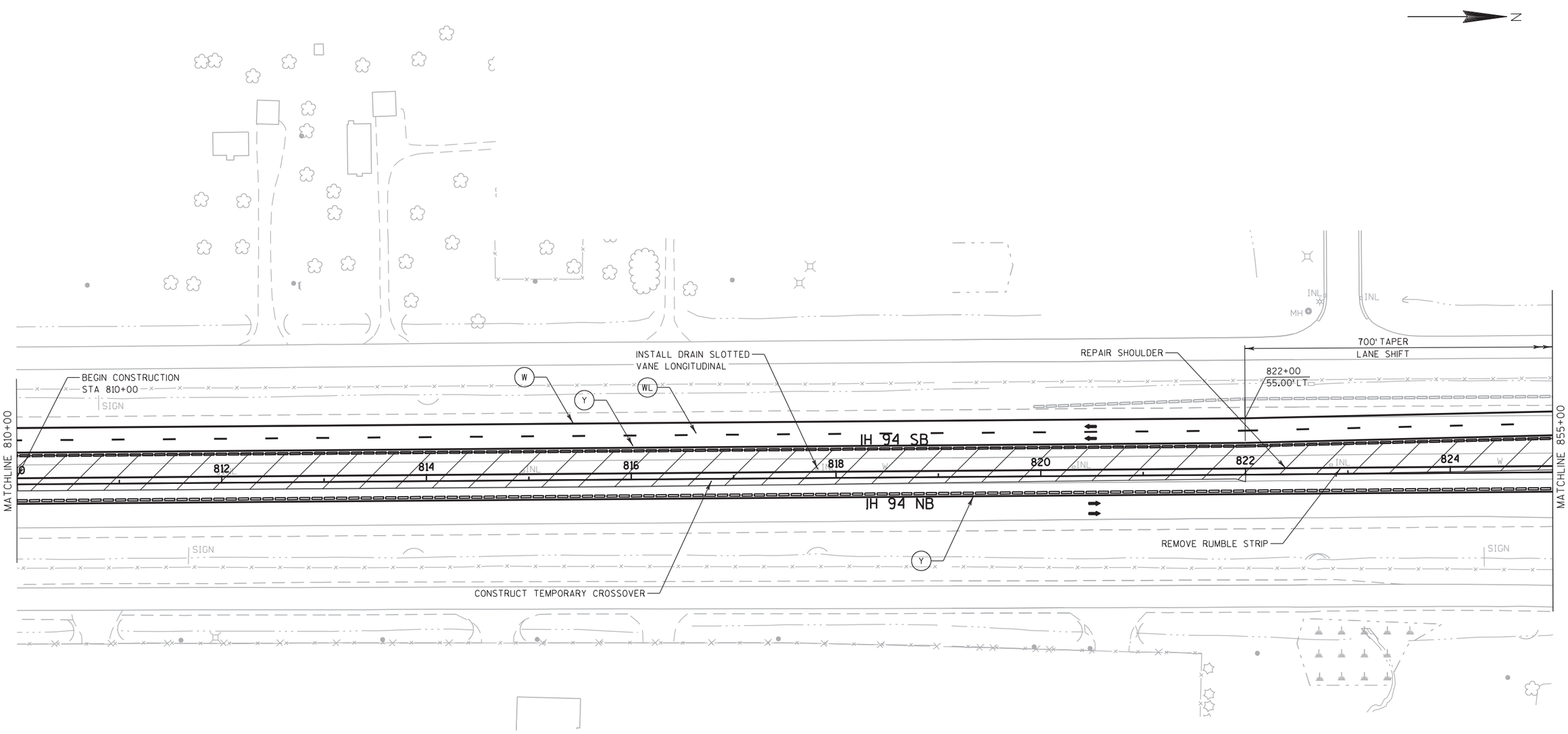
SIGN

LEGEND

- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
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- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1B CONSTRUCTION	SHEET	E

2



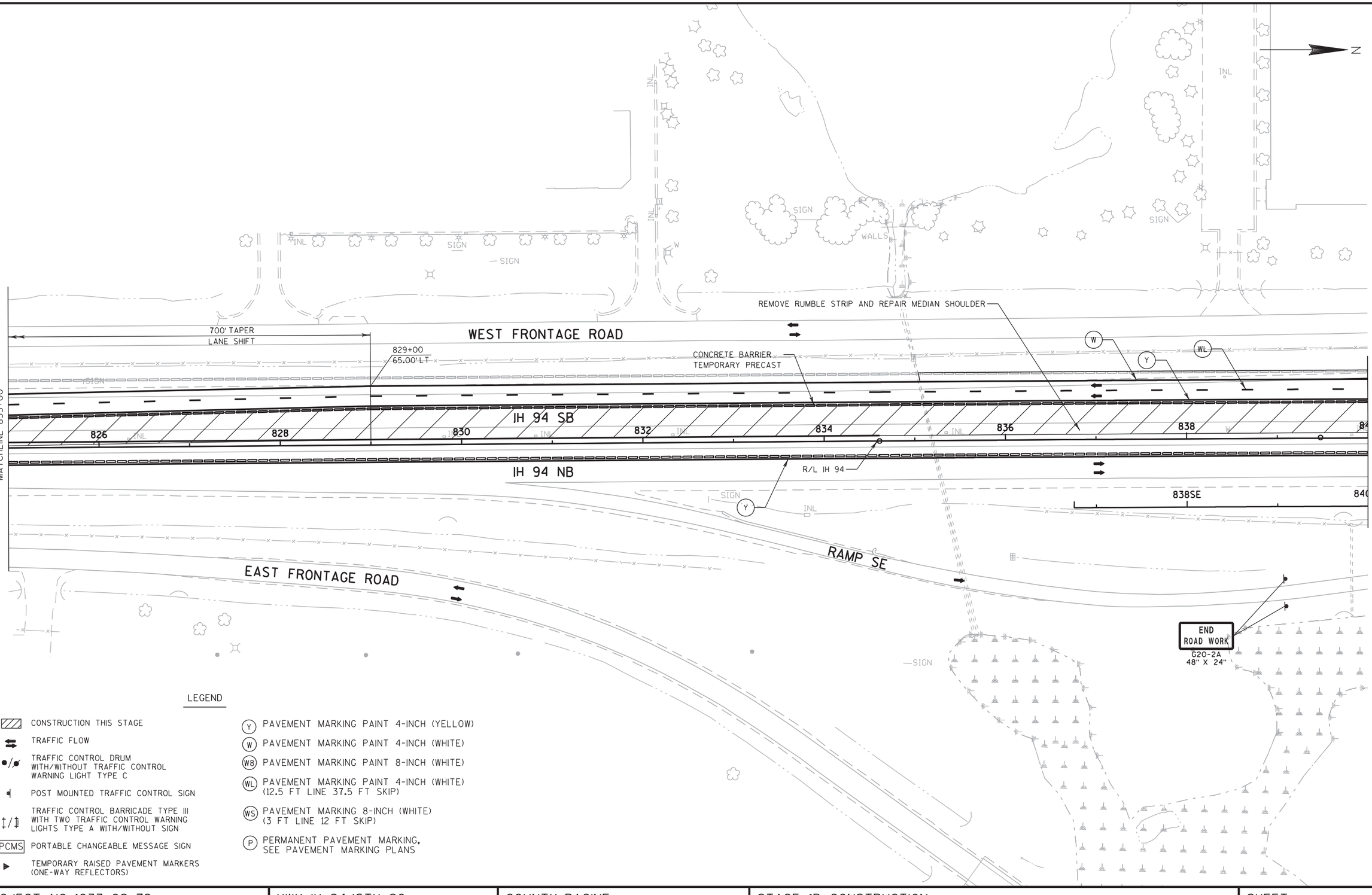
LEGEND

- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTORS)

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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1B CONSTRUCTION	SHEET	E

2



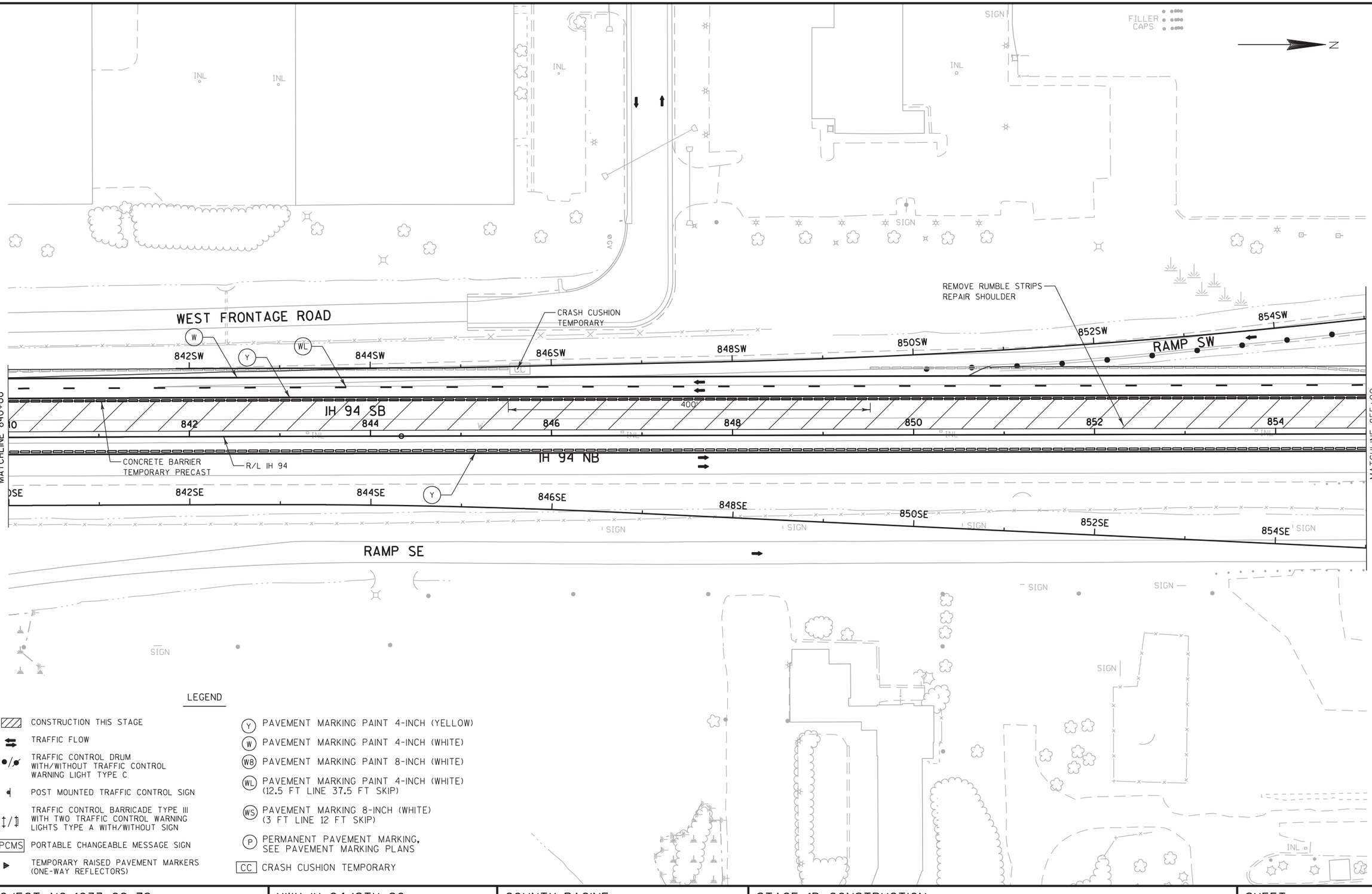
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1B CONSTRUCTION	SHEET	E

2



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- CC CRASH CUSHION TEMPORARY

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1B CONSTRUCTION	SHEET	E

2

2

N

ROAD WORK AHEAD W20-1

RIGHT SHOULDER CLOSED W21-5A

RIGHT SHOULDER CLOSED AHEAD W21-5B

ROAD WORK AHEAD W20-1

REMOVE RUMBLE STRIPS
REPAIR MEDIAN SHOULDER

REMOVE RUMBLE STRIPS
REPAIR MEDIAN SHOULDER

RAMP SW

856SW 858SW 860SW 862SW

RAMP NW

864NW 866NW 868NW

RAMP SE

856SE 858SE 860SE

RAMP NE

862NE 864NE 866NE 868NE

STH 20

IH 94 SB

IH 94 NB

R/L IH 94

290 292 294 296 298

500' 500'

856 858 860 862 864 866 868

MATCHLINE 855+00

MATCHLINE 870+00

SIGN FILLER CAPS FLAG INL MH W WL Y HW U/C

LEGEND

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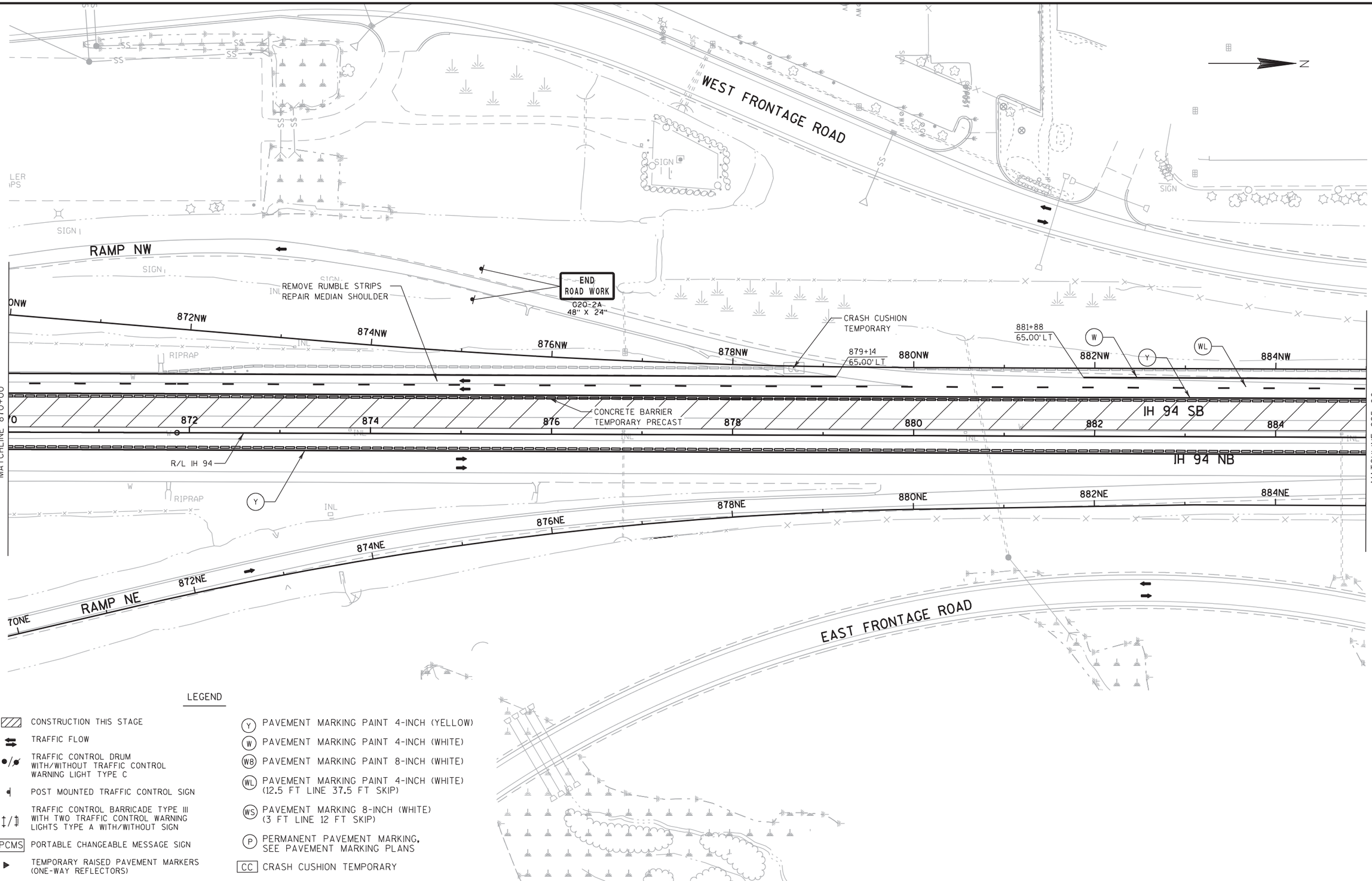
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1B CONSTRUCTION	SHEET	E

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WISDOT/CADDS SHEET 42

2

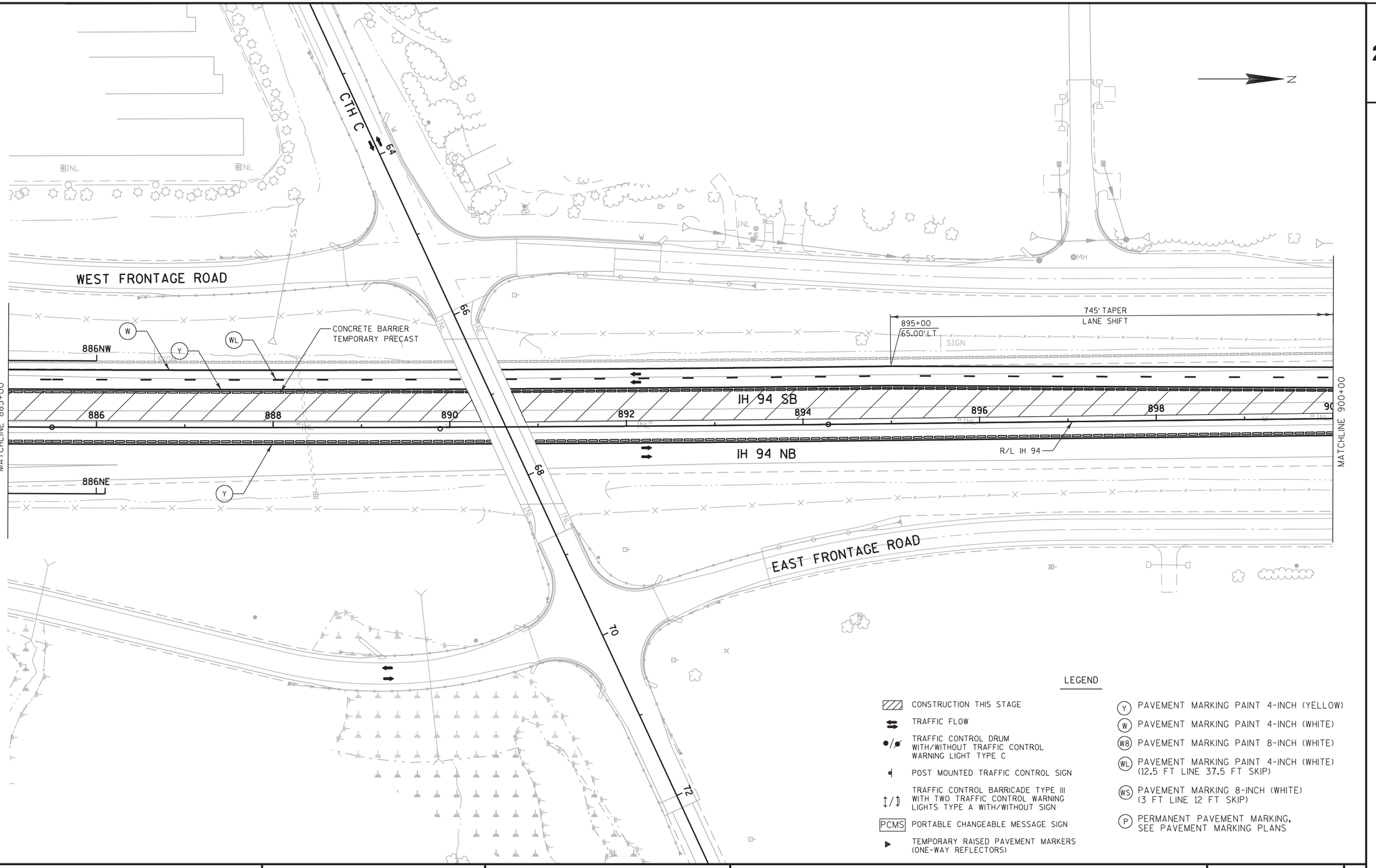


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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1B CONSTRUCTION	SHEET	E

2



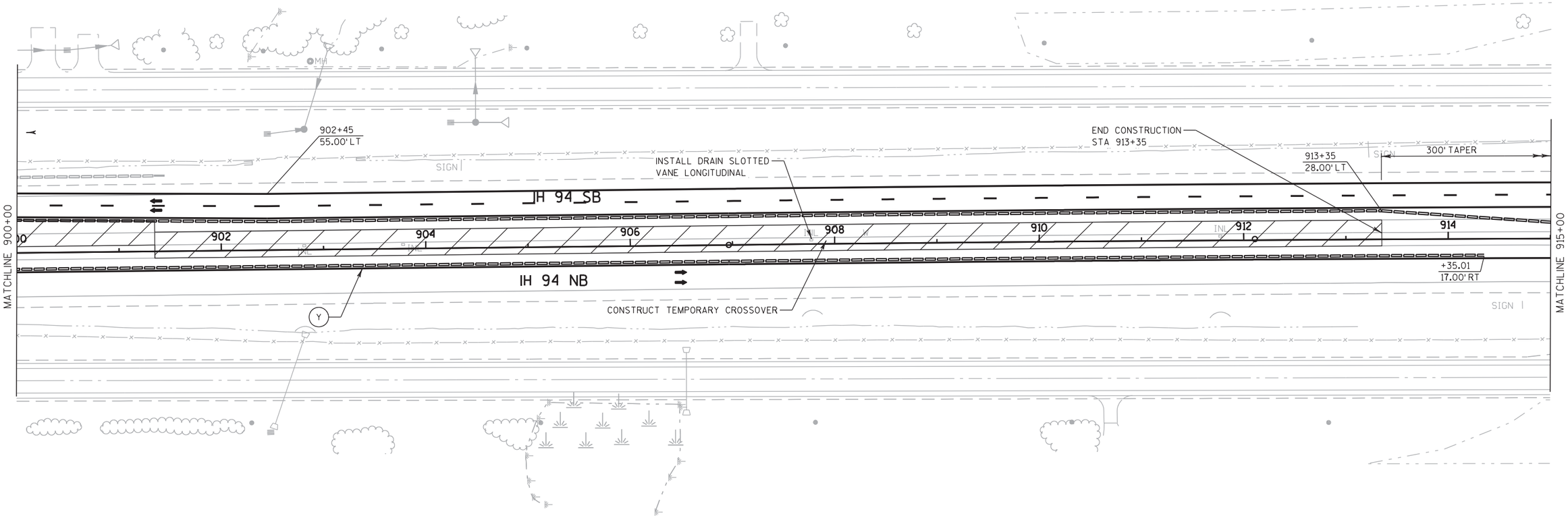
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1B CONSTRUCTION	SHEET	E

2



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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1B CONSTRUCTION	SHEET	E

2

N

SIGN

SIGN

500' BUFFER

660' TAPER
LANE DROP

475'
LANE BUFFER

300' TAPER

INL

SIGN

W

RIPRAP

IH 94 SB

916 | 918 | 920 | 922 | 924 | 926 | 928

918+35
19.00' RT

921+35
31.00' LT

50'
(TYP)

927+95
19.00' LT

IH 94 NB

MATCHLINE 915+00

MATCHLINE 930+00

Y

RIPRAP

RIPRAP

919+85
7.00' RT

150' TAPER

500'

300'

STA 916+35
END REMOVING CONCRETE BARRIER
END CONCRETE BARRIER TEMPORARY PRECAST
CONNECT TO EXISTING BARRIER
SEE S.D.D. CONCRETE BARRIER TEMPORARY PRECAST

END
ROAD WORK
G20-2A
48" X 24"

SPEED
LIMIT
65
R2-1
48" X 60"

SIGN

MH

LEGEND

- CONSTRUCTION THIS STAGE
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- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1B CONSTRUCTION	SHEET	E

2

N

W21-620
48"X30"
WORK ZONE
SPEED LIMIT 55
R2-1
48" X 60"
FINES DOUBLE
W21-62R
48"X30"

W04-2L | LEFT LANE CLOSED 1500 FT W20-5 | LEFT LANE CLOSED 1/2 MILE W20-5 | SPEED LIMIT 55 W3-5 48" X 48" | ROAD WORK 1 MILE W20-1 | ROAD WORK 2 MILES W20-1

SIGN

525' | 575' | 525' | 500' | 2100' | 500' | 4000' | B2 500' | A 500'

475' LANE BUFFER | 25'

SIGN | RIPRAP | MH

50' (TYP)

IH 94 SB

930 | 932 | 934 | 936 | 938 | 940 | 942 | 944

IH 94 NB

MATCHLINE 930+00

932+70
19.00' LT

4 DRUMS
@ 10' SPACING

SIGN

W

(A)
FINES DOUBLE IN WORK ZONES
Give 'em a BRAKE SLOW DOWN
W21-62
96" X 48"

$200 MINIMUM
W21-62P
96" X 12"

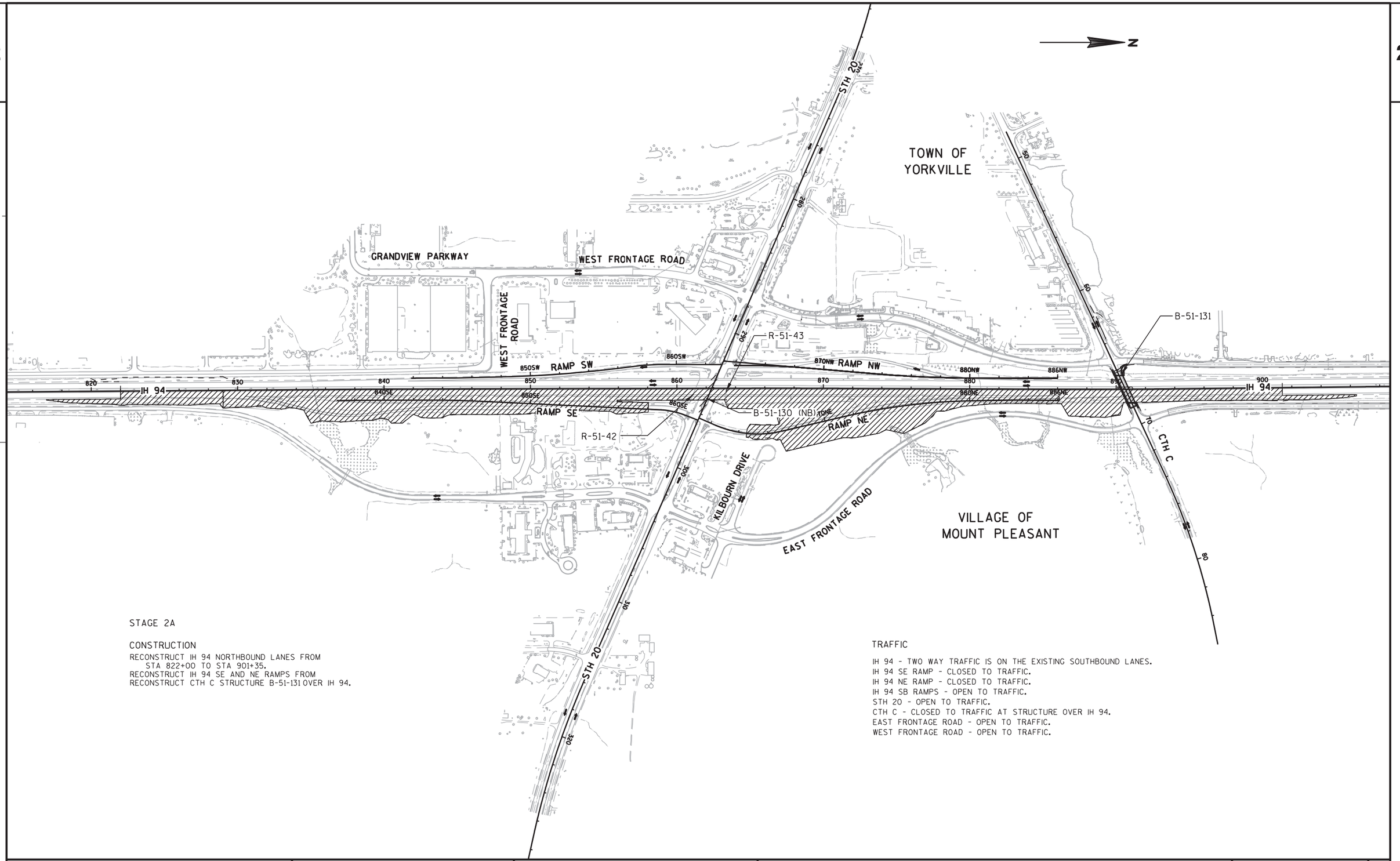
(B2)
ROADWORK AHEAD
EXPECT DELAYS
FIXED MESSAGE SIGN
SEE SIGN DETAILS FOR
LAYOUT INFORMATION

LEGEND

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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 1B CONSTRUCTION	SHEET	E

2



STAGE 2A

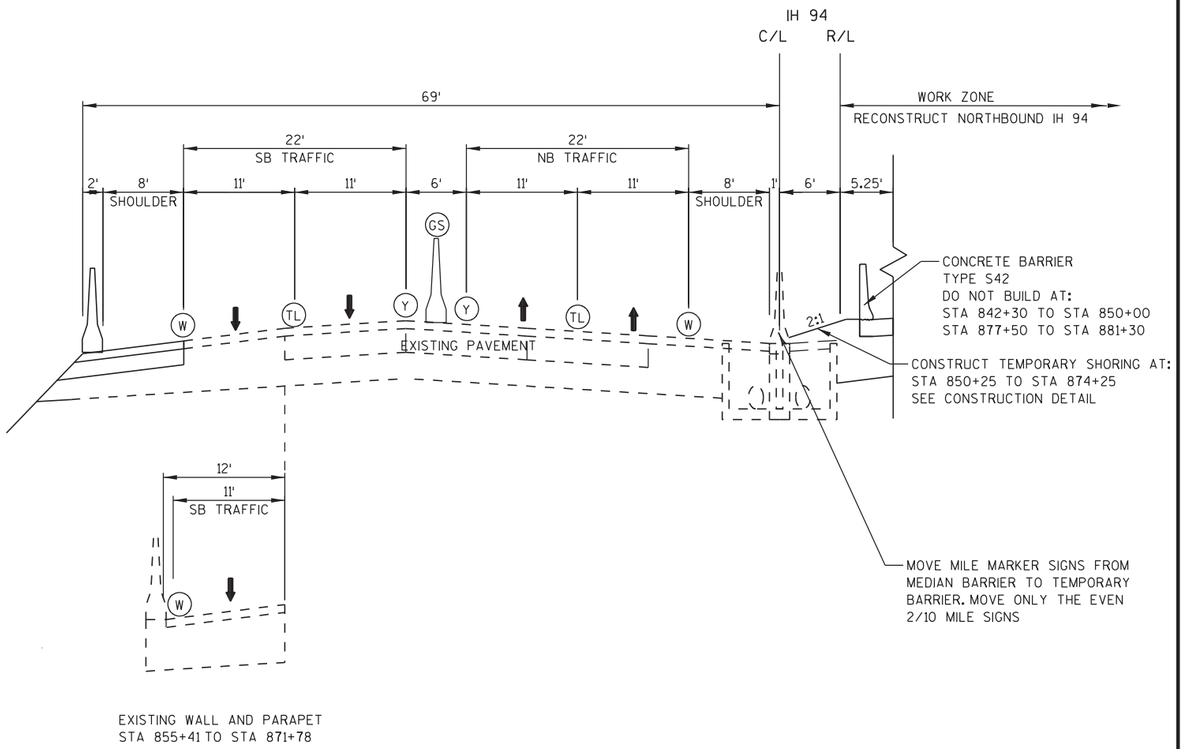
CONSTRUCTION

RECONSTRUCT IH 94 NORTHBOUND LANES FROM
STA 822+00 TO STA 901+35.
RECONSTRUCT IH 94 SE AND NE RAMPS FROM
RECONSTRUCT CTH C STRUCTURE B-51-131 OVER IH 94.

TRAFFIC

IH 94 - TWO WAY TRAFFIC IS ON THE EXISTING SOUTHBOUND LANES.
IH 94 SE RAMP - CLOSED TO TRAFFIC.
IH 94 NE RAMP - CLOSED TO TRAFFIC.
IH 94 SB RAMPS - OPEN TO TRAFFIC.
STH 20 - OPEN TO TRAFFIC.
CTH C - CLOSED TO TRAFFIC AT STRUCTURE OVER IH 94.
EAST FRONTAGE ROAD - OPEN TO TRAFFIC.
WEST FRONTAGE ROAD - OPEN TO TRAFFIC.

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CONSTRUCTION STAGING OVERVIEW: STAGE 2A	SHEET	E



EXISTING WALL AND PARAPET
STA 855+41 TO STA 871+78

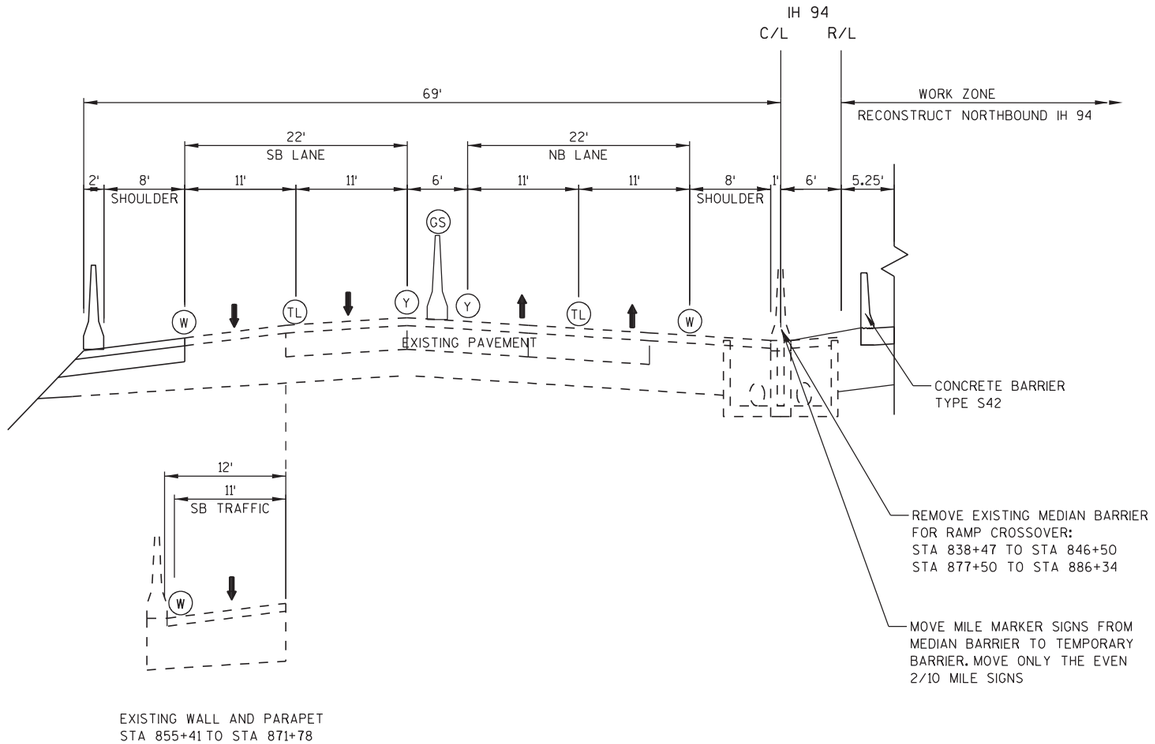
TYPICAL SECTION
STAGE 2A

STA 829+00 TO STA 895+00

LEGEND

- (Y) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (W) PAVEMENT MARKING PAINT 4-INCH (WHITE)
- (TL) PAVEMENT MARKING PAINT, LANE LINE

TRAFFIC CONTROL DRUMS SPACED AT
50' CENTER TO CENTER SPACING



EXISTING WALL AND PARAPET
STA 855+41 TO STA 871+78

TYPICAL SECTION
STAGE 2B

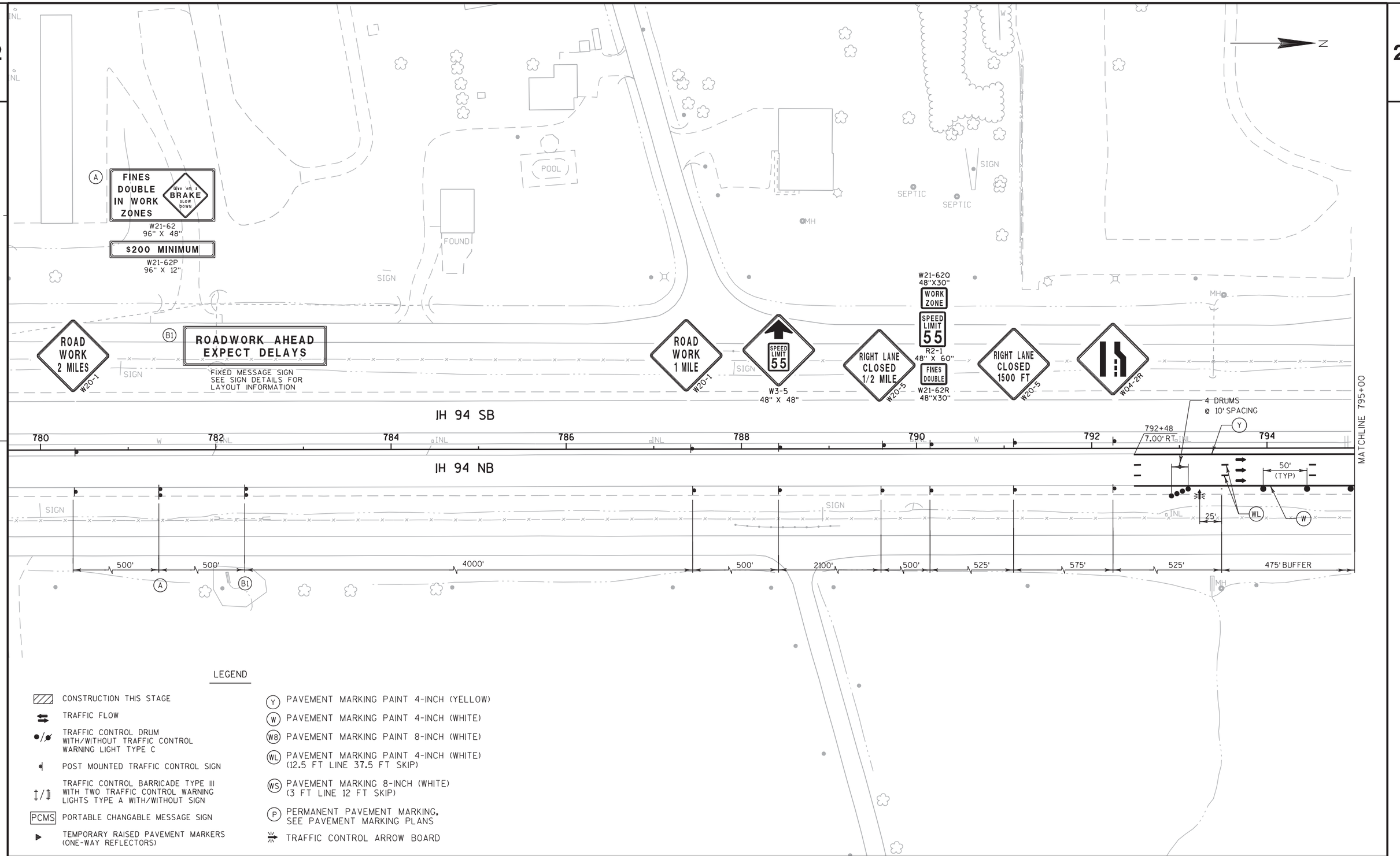
STA 829+00 TO STA 895+00

LEGEND

- (GS) GLARE SCREEN TEMPORARY
- (Y) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (W) PAVEMENT MARKING PAINT 4-INCH (WHITE)
- (TL) PAVEMENT MARKING PAINT, LANE LINE

TRAFFIC CONTROL DRUMS SPACED AT
50' CENTER TO CENTER SPACING

2

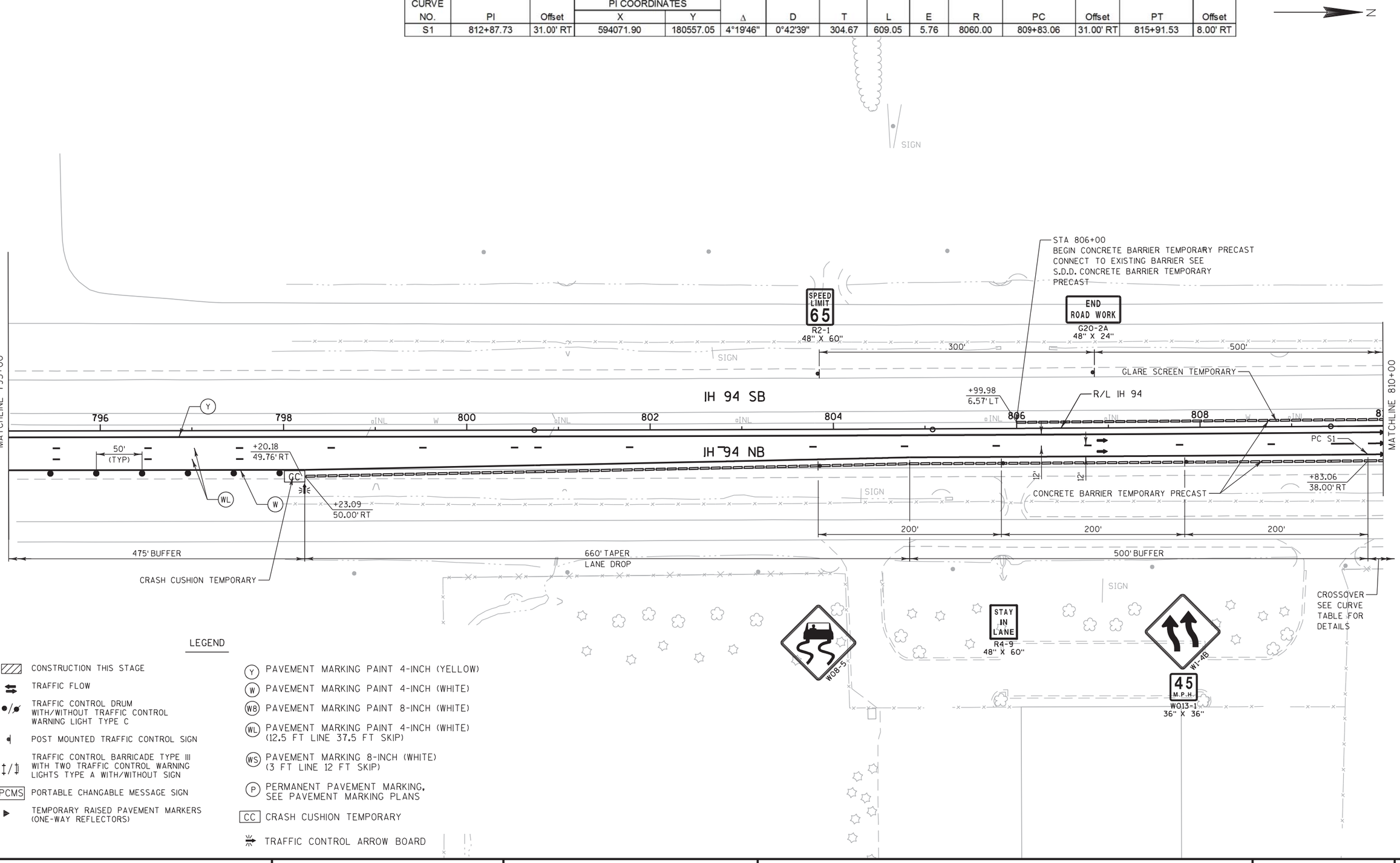


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- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2A CONSTRUCTION	SHEET	E

CURVE DATA														
CURVE NO.	PI	Offset	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	Offset	PT	Offset
S1	812+87.73	31.00' RT	594071.90	180557.05	4°19'46"	0°42'39"	304.67	609.05	5.76	8060.00	809+83.06	31.00' RT	815+91.53	8.00' RT

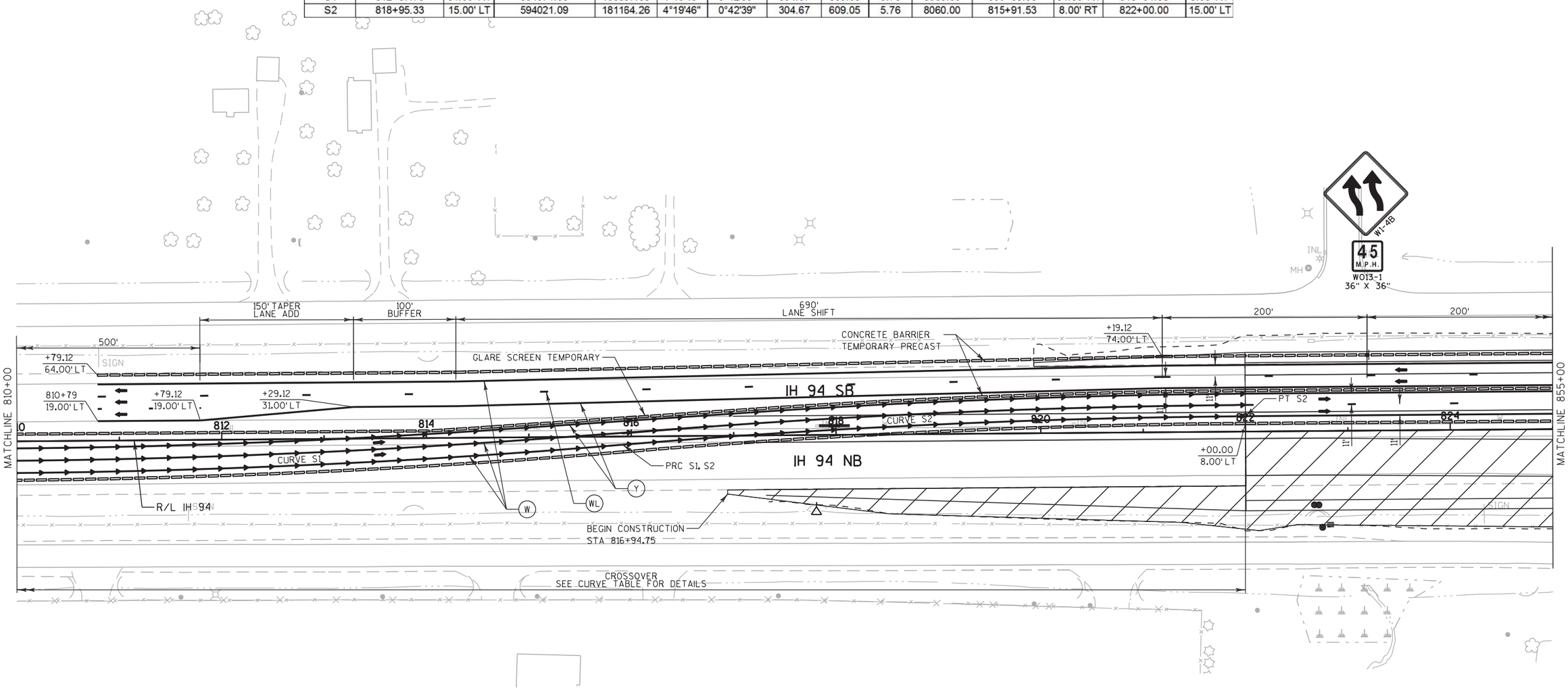


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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2A CONSTRUCTION	SHEET	E

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S2	818+95.33	15.00' LT	594021.09	181164.26	4°19'46"	0°42'39"	304.67	609.05	5.76	8060.00	815+91.53	8.00' RT	822+00.00	15.00' LT



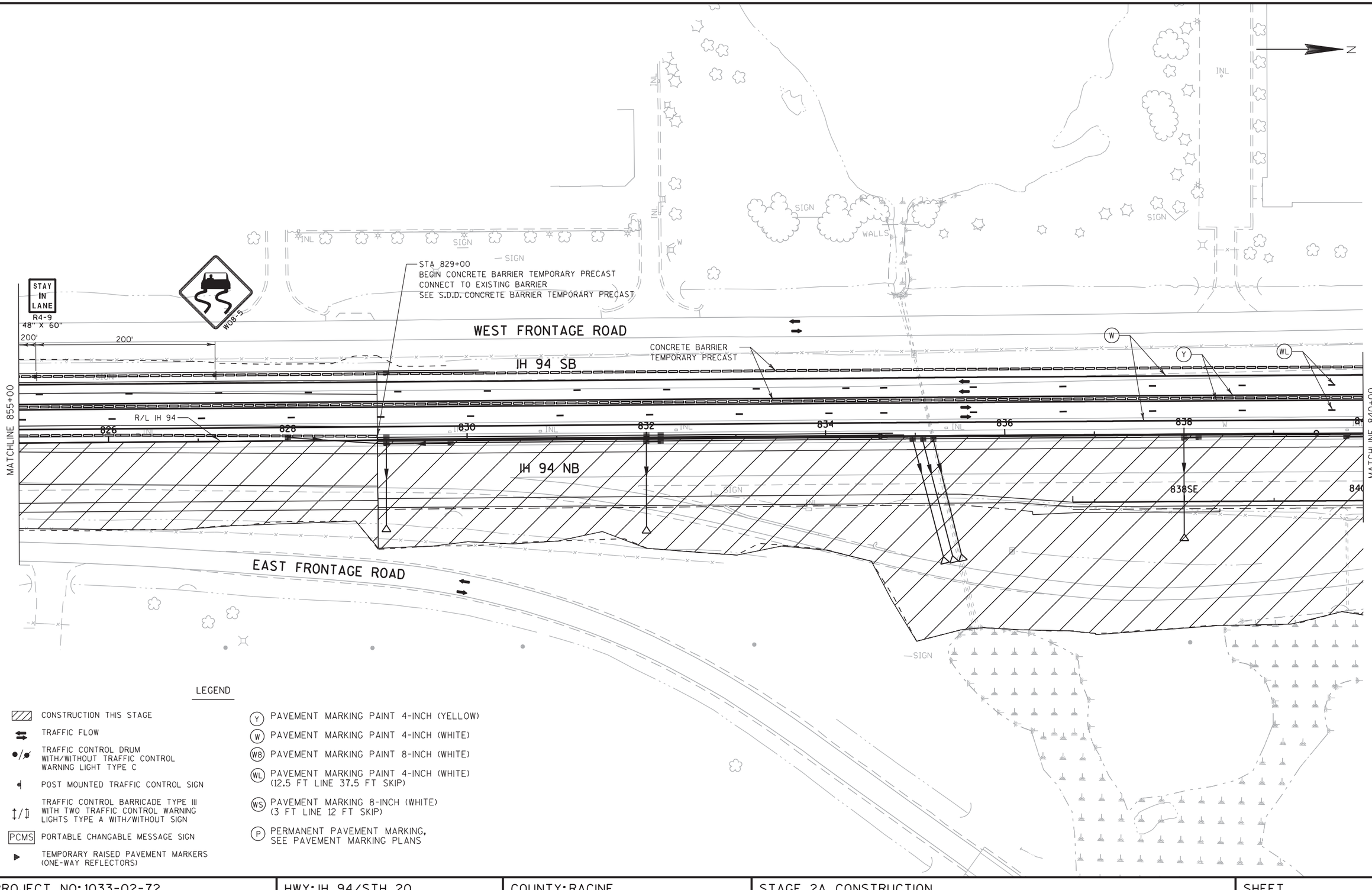
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2A CONSTRUCTION	SHEET	E

2

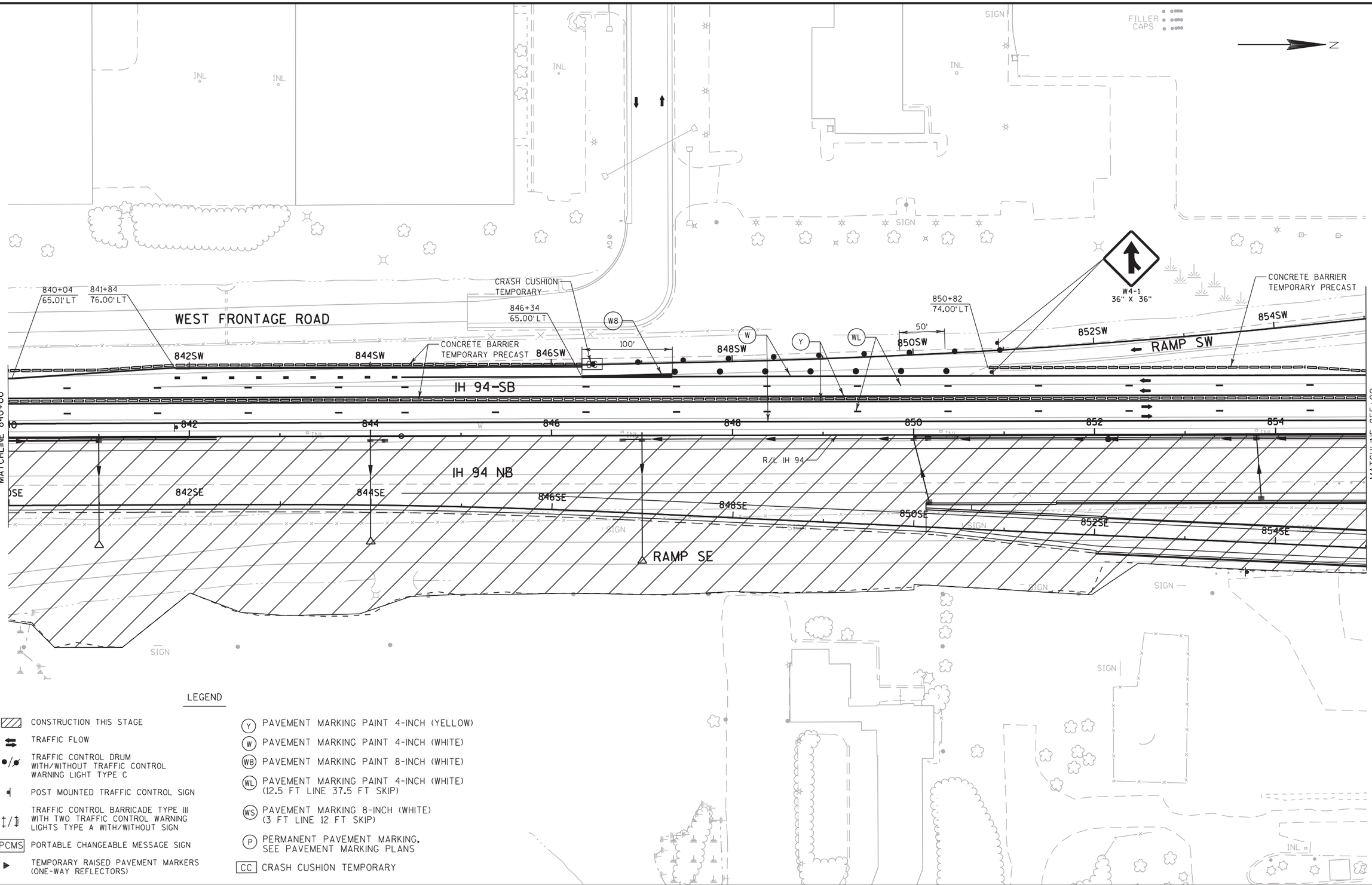


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- (WL) PAVEMENT MARKING PAINT 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2A CONSTRUCTION	SHEET	E

2



LEGEND

- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTORS)
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- CC CRASH CUSHION TEMPORARY

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2A CONSTRUCTION	SHEET	E

2

2

MATCHLINE 290+00

N

ROAD WORK AHEAD W20-1

856SW 858SW 860SW 862SW

RAMP SW

CONCRETE BARRIER TEMPORARY PRECAST

IH 94-SB

IH 94 NB

856 858 860 862

MATCHLINE 855+00

STH 20

292

FILLER CAPS

SIGN

FLAG

MH

INL

CC

W

WL

Y

864NW 866NW 868NW

RAMP NW

864 866 868

R/ IH 94

856SE 858SE 860SE

296

END CONSTRUCTION STA 858SE+05.07

862NE 864NE 866NE 868NE

MATCHLINE 298+00

MATCHLINE 870+00

R11-2 48" X 30" ROAD CLOSED

TYPE III BARRICADE

LEGEND

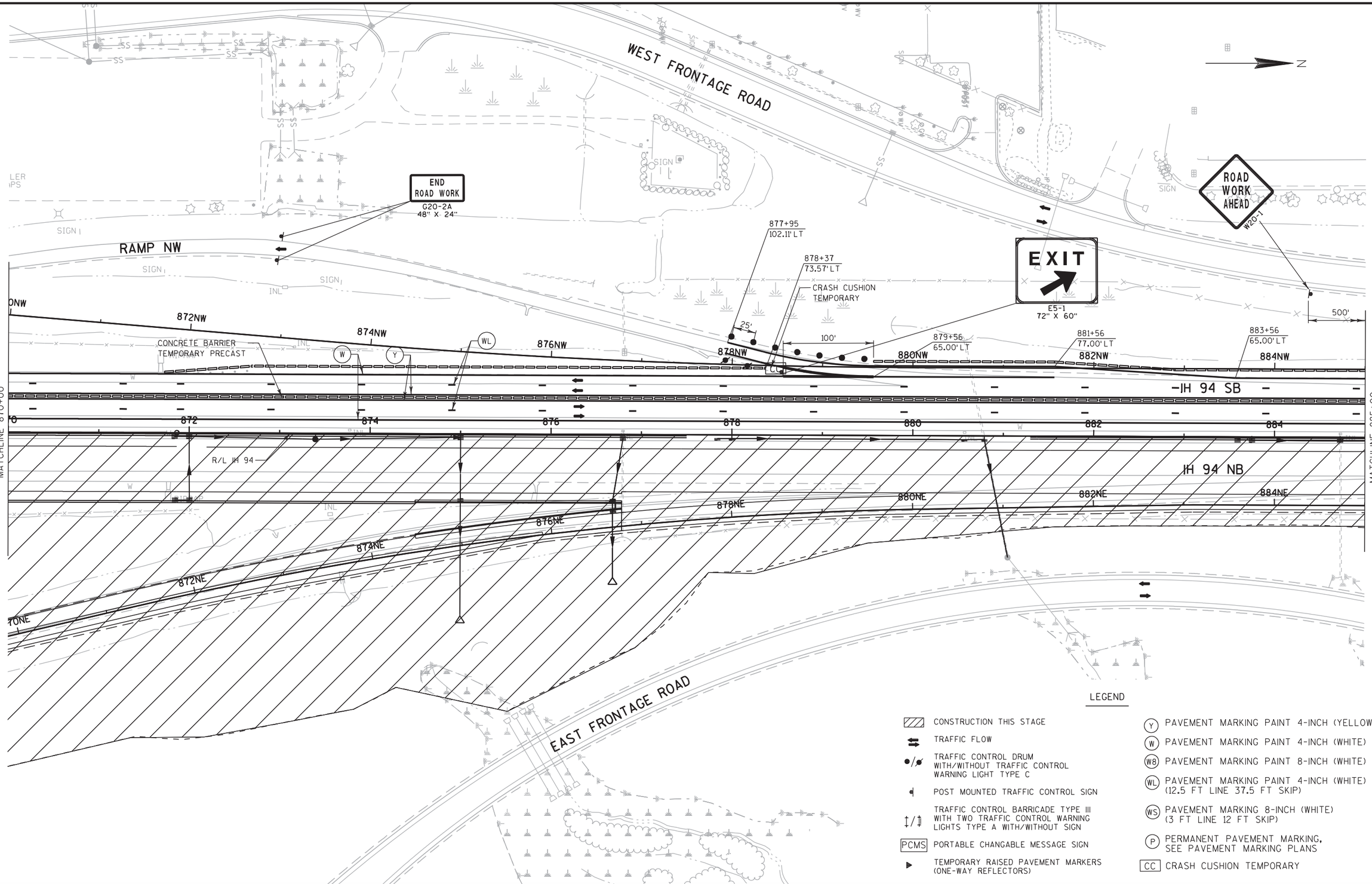
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2A CONSTRUCTION	SHEET	E

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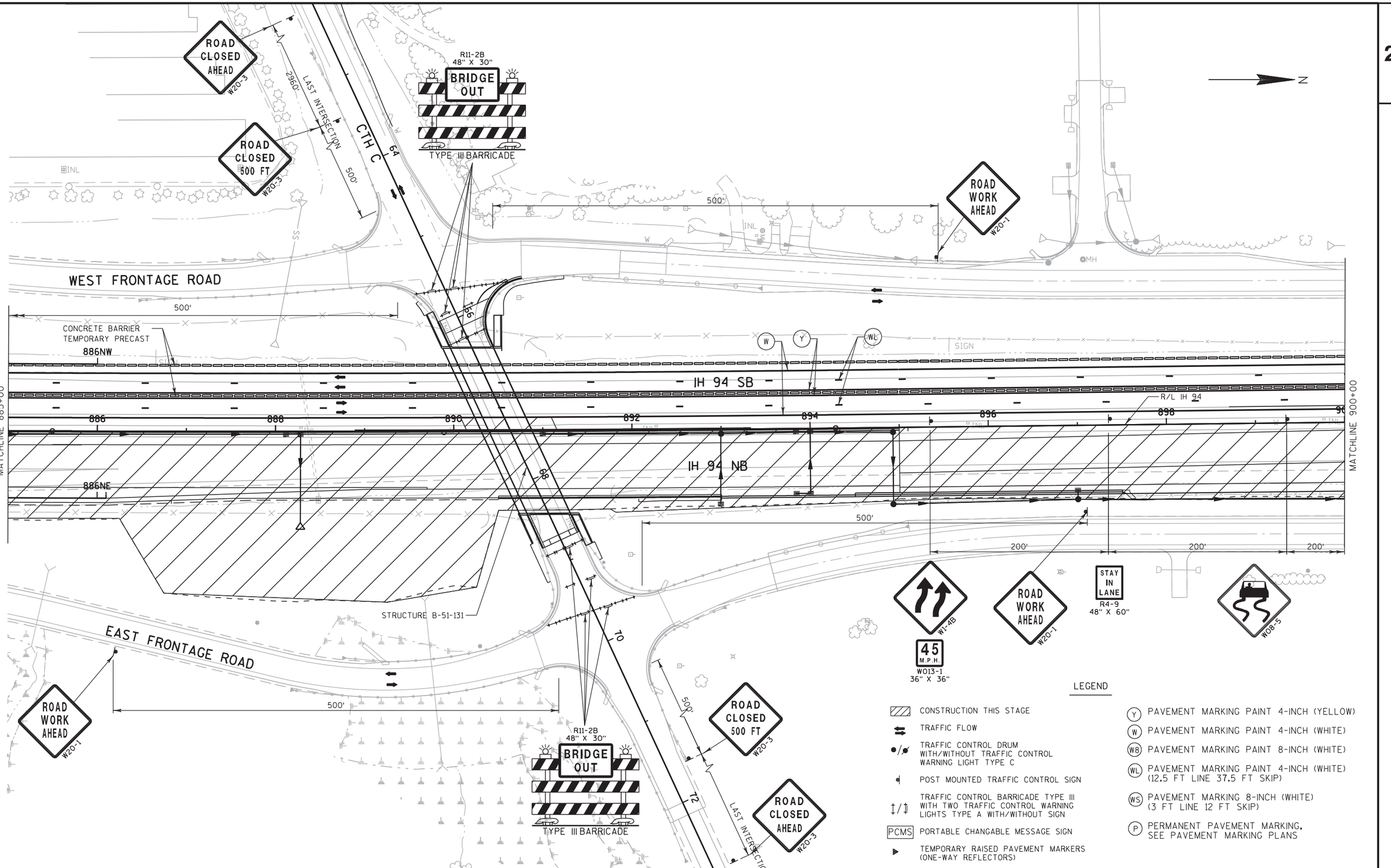


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- CC CRASH CUSHION TEMPORARY

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2A CONSTRUCTION	SHEET	E

2



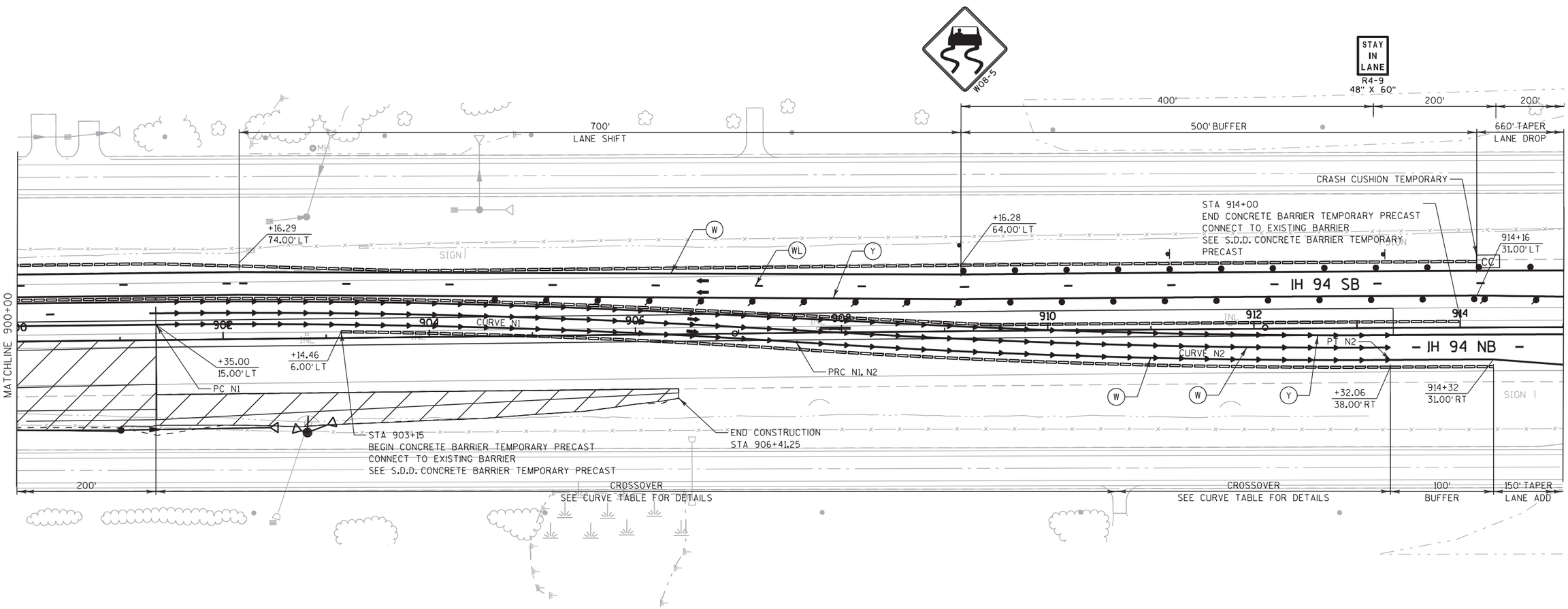
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2A CONSTRUCTION	SHEET	E

CURVE DATA														
CURVE NO.	PI	Offset	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	Offset	PT	Offset
N1	904+45.86	15.00' LT	593991.09	189714.58	4°25'03"	0°42'39"	310.86	621.42	5.99	8060.00	901+35.00	15.00' LT	907+55.80	8.93' RT
N2	910+43.51	30.64' RT	594030.49	190312.62	4°05'58"	0°42'39"	288.47	576.70	5.16	8060.00	907+55.80	8.93' RT	913+32.11	31.00' RT



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- CC CRASH CUSHION TEMPORARY

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2A CONSTRUCTION	SHEET	E

2

W1-4B

45 M.P.H.
W013-1
36" X 36"

200'

660' TAPER
LANE DROP

475' BUFFER

525' 575' 525' 500' 2100' 500' 4000'

LEFT LANE CLOSED 1500 FT
W20-5

W04-2L

W21-62O
48"X30"
WORK ZONE
SPEED LIMIT 55
R2-1
48" X 60"
FINES DOUBLE
W21-62R
48"X30"

LEFT LANE CLOSED 1/2 MILE
W20-5

N

ROAD WORK 1 MILE
W20-1

SPEED LIMIT 55
W3-5
48" X 48"

SIGN

INL

W

Y

WL

IH 94_SB

916 918 920 922 924 926 928

926+01
19.00' LT

917+26
25.37' LT

920+76
19.00' LT

IH 94 NB

4 DRUMS
@ 10' SPACING

RIPRAP

915+82
43.00' RT

MATCHLINE 915+00

MATCHLINE 930+00

150' TAPER
LANE ADD

500'

300'

END ROAD WORK
G20-2A
48" X 24"

SPEED LIMIT 65
R2-1
48" X 60"

HH

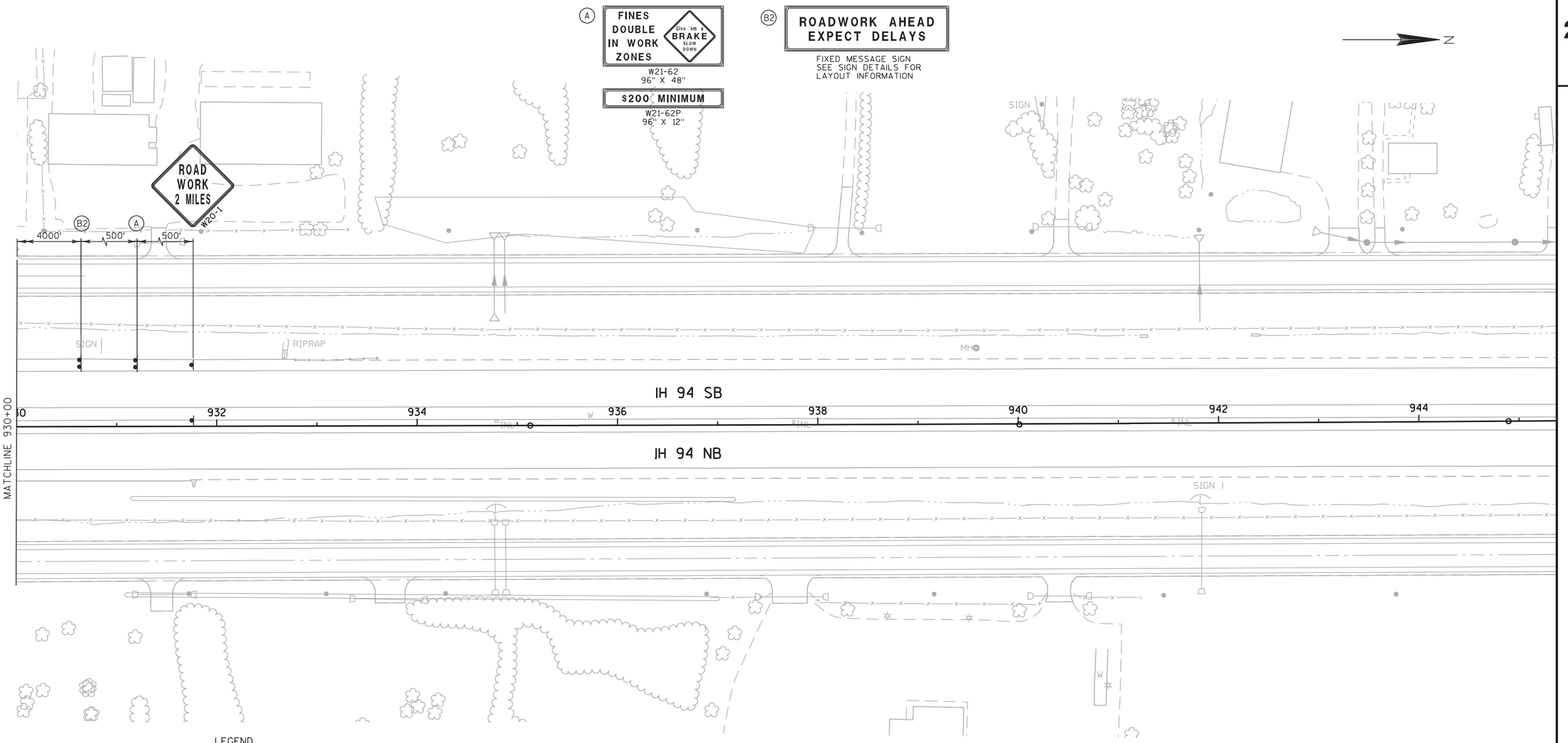
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- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2A CONSTRUCTION	SHEET	E

2



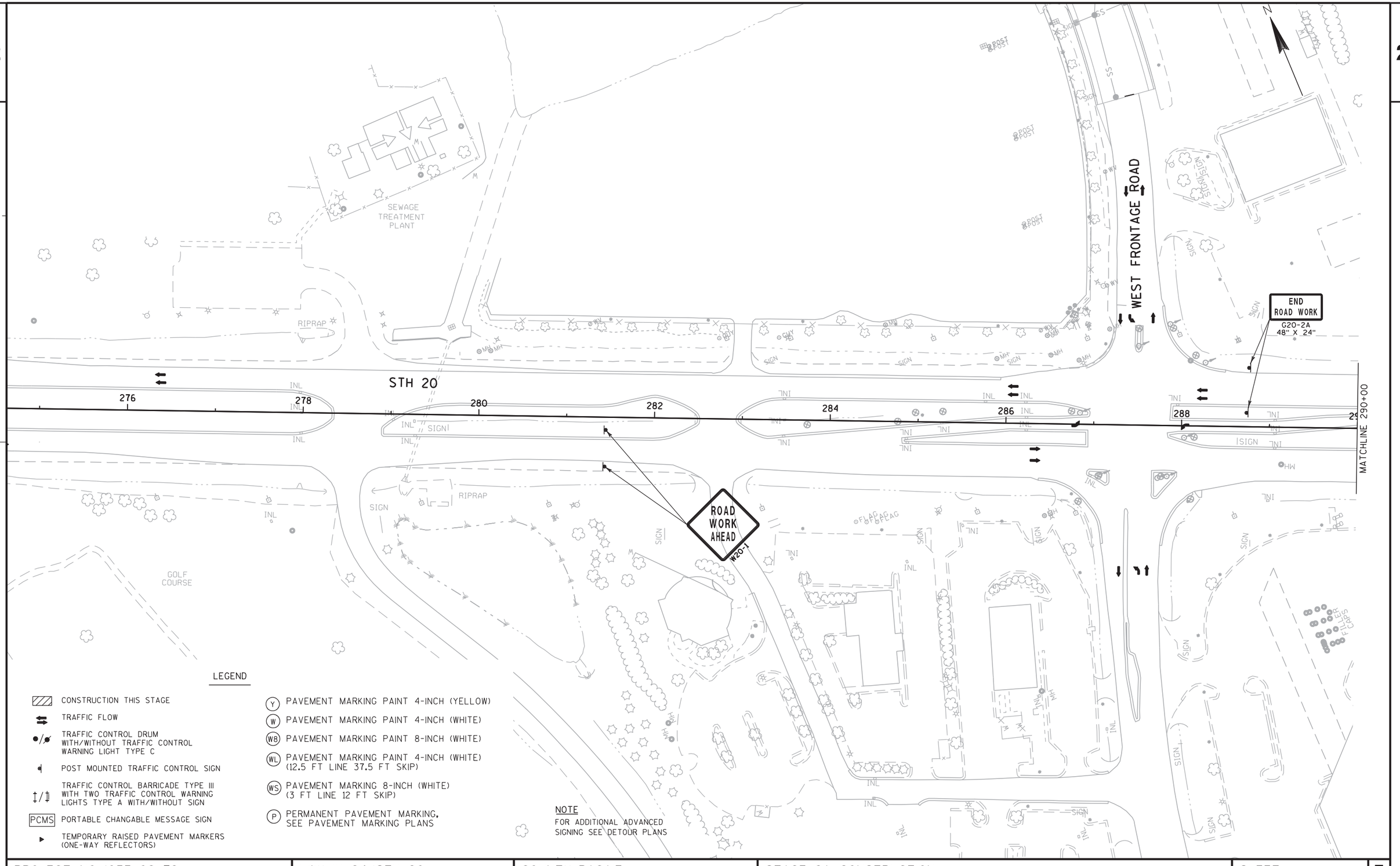
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2A CONSTRUCTION	SHEET	E

2



LEGEND

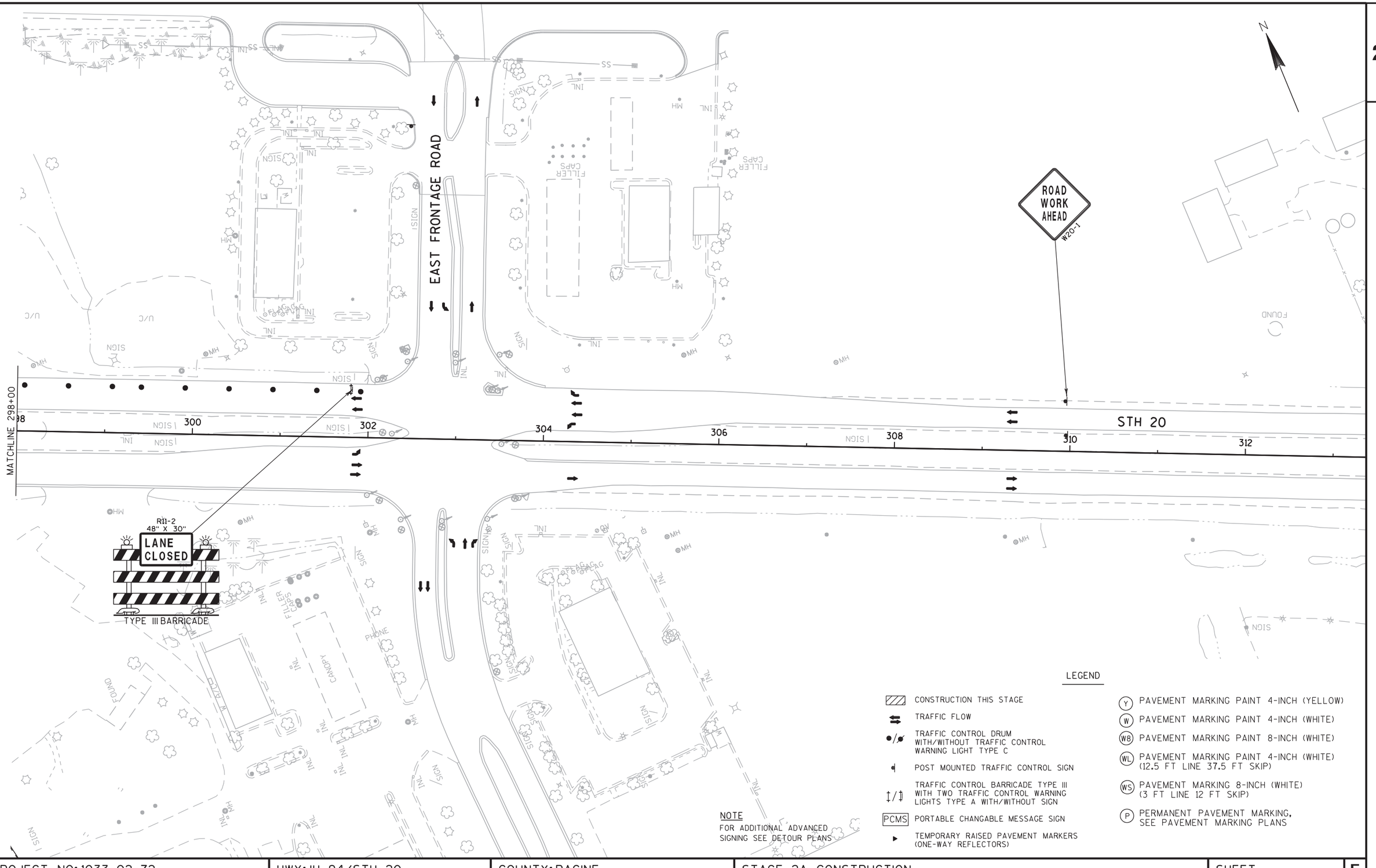
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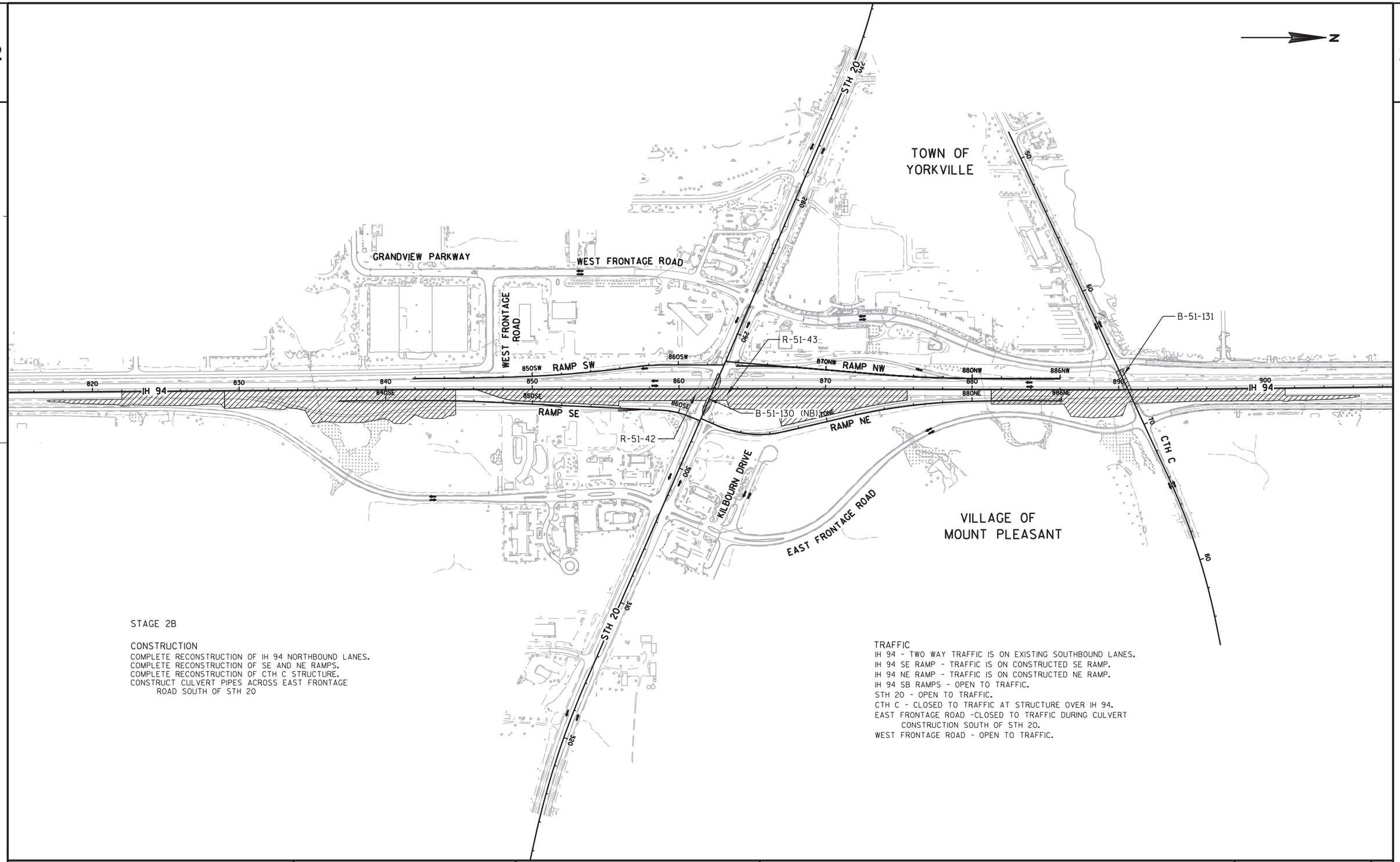
NOTE
FOR ADDITIONAL ADVANCED SIGNING SEE DETOUR PLANS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2A CONSTRUCTION	SHEET	E

2



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2A CONSTRUCTION	SHEET	E



STAGE 2B

CONSTRUCTION

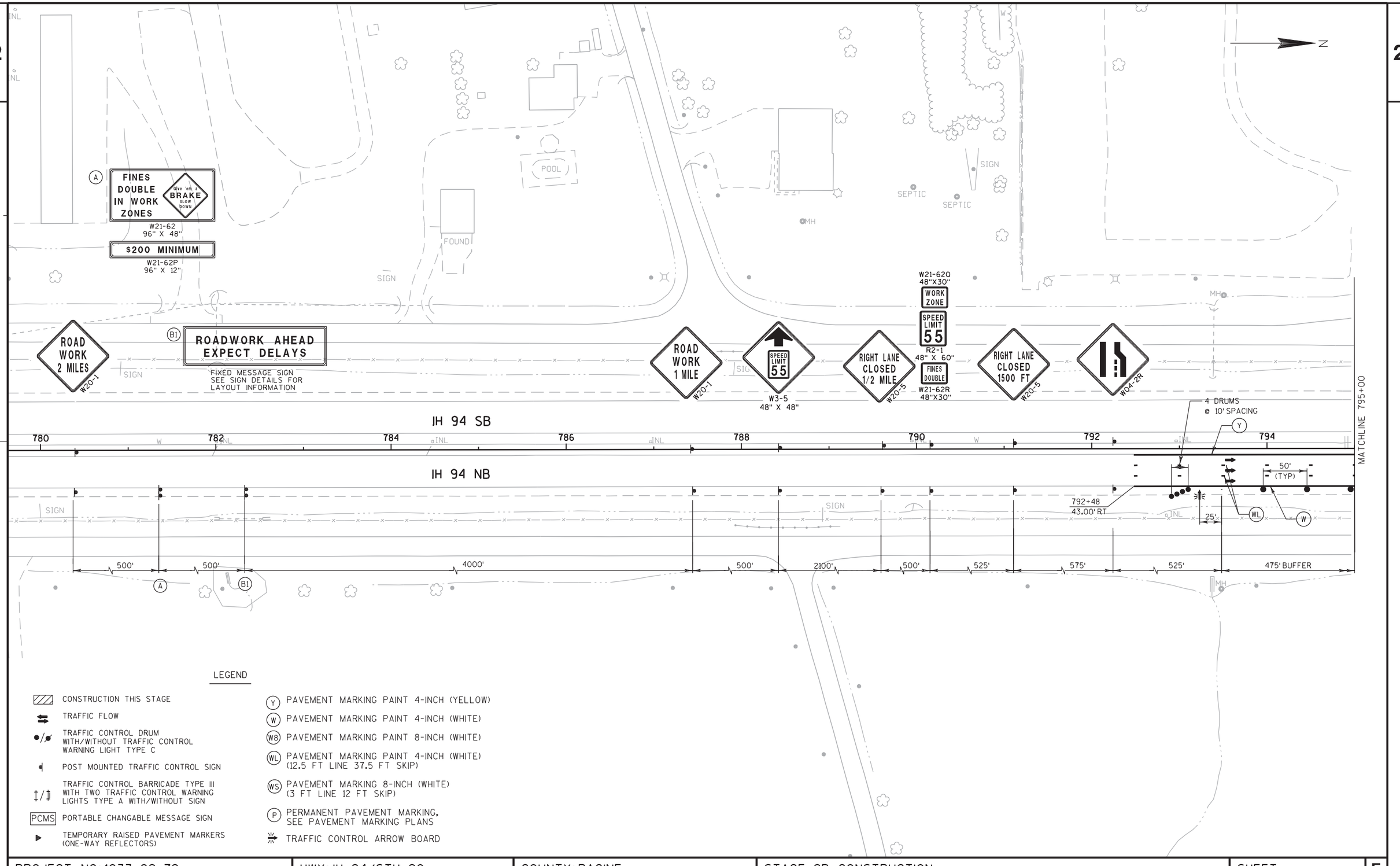
COMPLETE RECONSTRUCTION OF IH 94 NORTHBOUND LANES.
COMPLETE RECONSTRUCTION OF SE AND NE RAMPS.
COMPLETE RECONSTRUCTION OF CTH C STRUCTURE.
CONSTRUCT CULVERT PIPES ACROSS EAST FRONTAGE ROAD SOUTH OF STH 20

TRAFFIC

IH 94 - TWO WAY TRAFFIC IS ON EXISTING SOUTHBOUND LANES.
IH 94 SE RAMP - TRAFFIC IS ON CONSTRUCTED SE RAMP.
IH 94 NE RAMP - TRAFFIC IS ON CONSTRUCTED NE RAMP.
IH 94 SB RAMPS - OPEN TO TRAFFIC.
STH 20 - OPEN TO TRAFFIC.
CTH C - CLOSED TO TRAFFIC AT STRUCTURE OVER IH 94.
EAST FRONTAGE ROAD -CLOSED TO TRAFFIC DURING CULVERT CONSTRUCTION SOUTH OF STH 20.
WEST FRONTAGE ROAD - OPEN TO TRAFFIC.

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CONSTRUCTION STAGING OVERVIEW: STAGE 2B	SHEET	E

2



LEGEND

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- TRAFFIC CONTROL ARROW BOARD

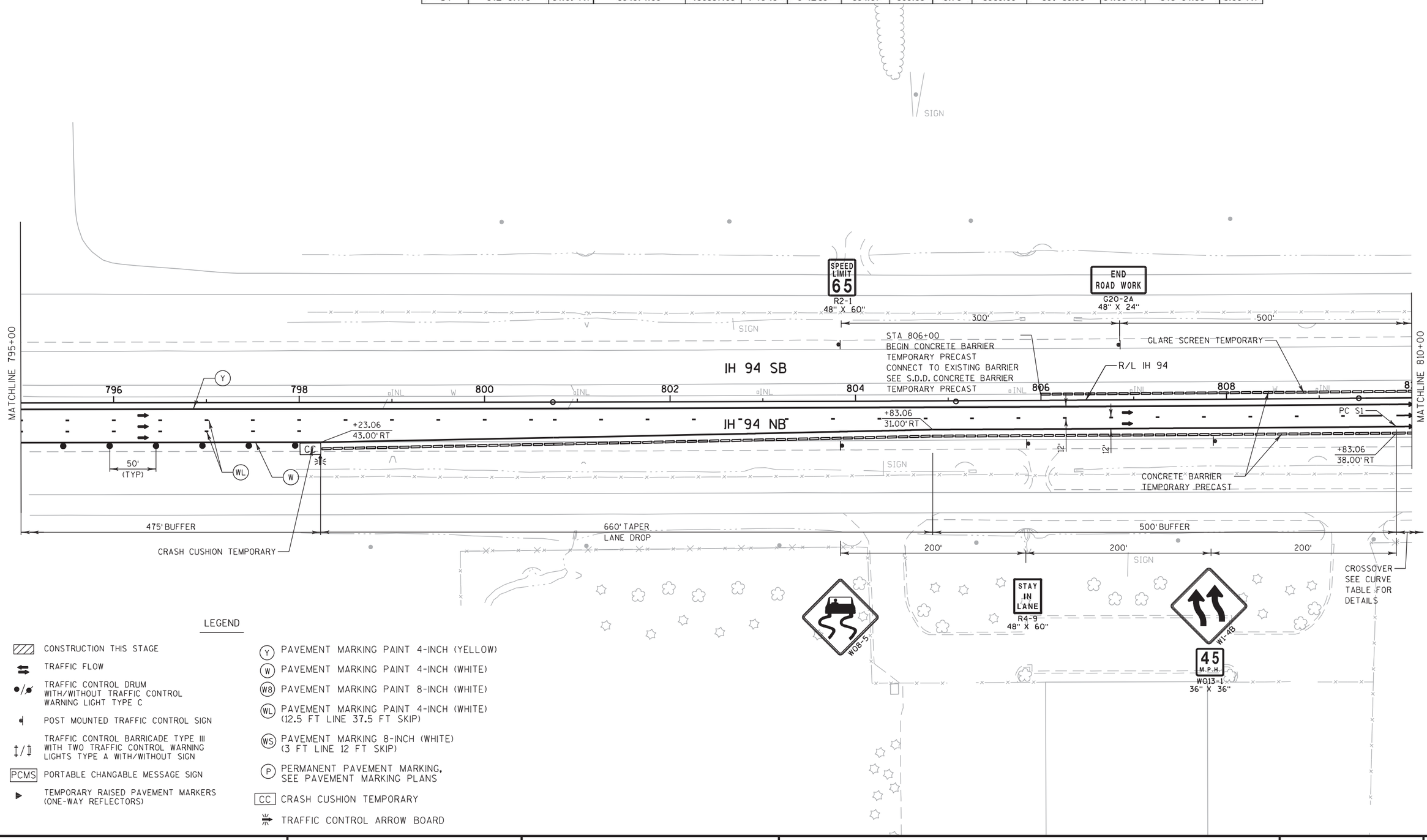
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2B CONSTRUCTION	SHEET	E

2

CURVE DATA

CURVE NO.	PI	Offset	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	Offset	PT	Offset
S1	812+87.73	31.00' RT	594071.90	180557.05	4°19'46"	0°42'39"	304.67	609.05	5.76	8060.00	809+83.06	31.00' RT	815+91.53	8.00' RT

N

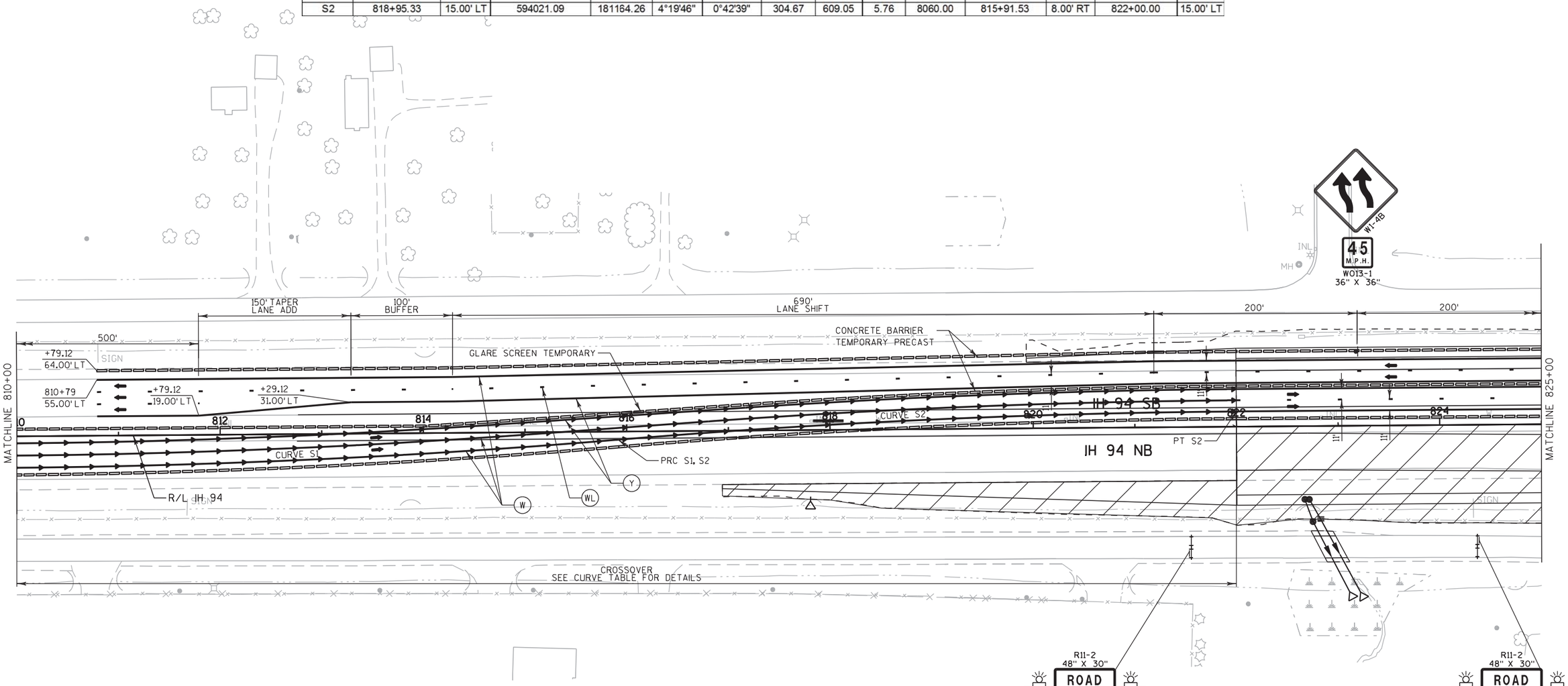


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- CC CRASH CUSHION TEMPORARY
- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2B CONSTRUCTION	SHEET	E

CURVE DATA														
CURVE NO.	PI	Offset	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	Offset	PT	Offset
S1	812+87.73	31.00' RT	594071.90	180557.05	4°19'46"	0°42'39"	304.67	609.05	5.76	8060.00	809+83.06	31.00' RT	815+91.53	8.00' RT
S2	818+95.33	15.00' LT	594021.09	181164.26	4°19'46"	0°42'39"	304.67	609.05	5.76	8060.00	815+91.53	8.00' RT	822+00.00	15.00' LT



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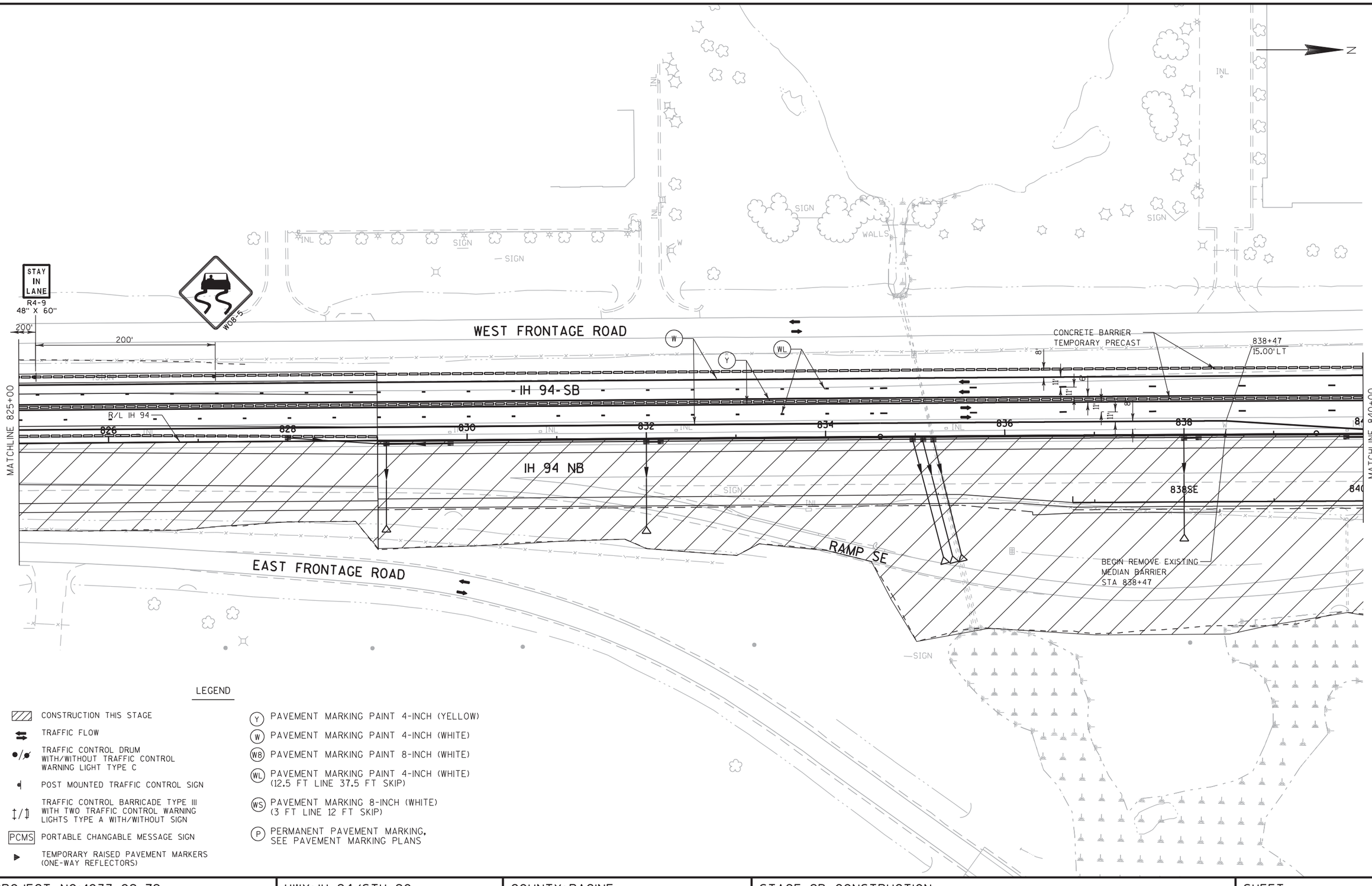
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- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS

NOTE

SEE DETOUR PLAN FOR ADDITIONAL SIGNING

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2B CONSTRUCTION	SHEET	E

2



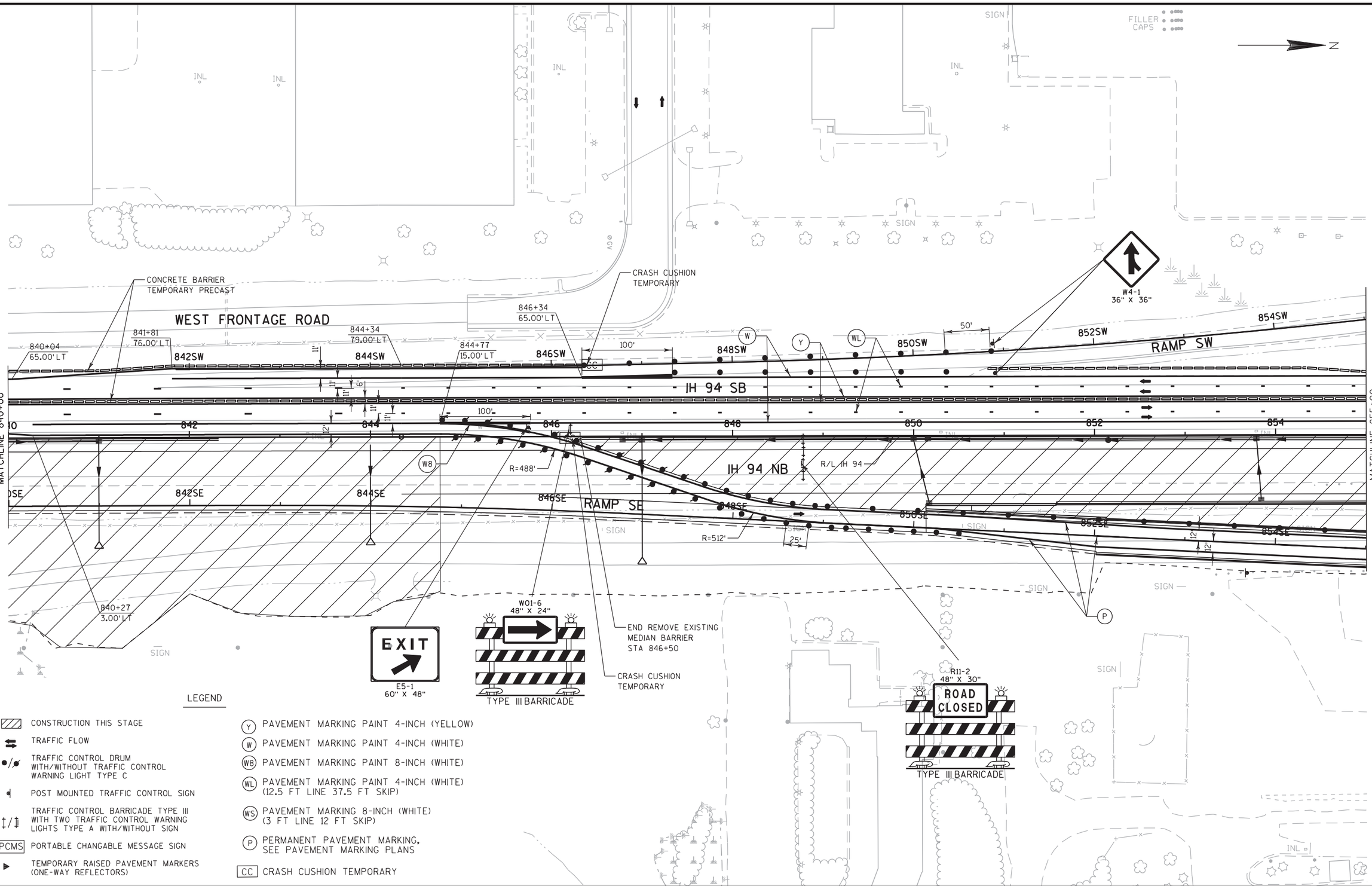
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2B CONSTRUCTION	SHEET	E

2



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- CC CRASH CUSHION TEMPORARY

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2B CONSTRUCTION	SHEET	E

2

MATCHLINE 291+00

ROAD WORK AHEAD W20-1

856SW

858SW

860SW

862SW

RAMP SW

CONCRETE BARRIER TEMPORARY PRECAST

+41.16

66.79'LT

CONCRETE BARRIER TEMPORARY PRECAST

IH 94 SB

IH 94 NB

MATCHLINE 855+00

856

858

860

862

864

866

868

STH 20

292

864NW

866NW

R/L IH 94

856SE

858SE

860SE

RAMP SE

862NE

864NE

866NE

RAMP NE

ROAD WORK AHEAD W20-1

R11-2 48" X 30"

LANE CLOSED

TYPE III BARRICADE

298

MATCHLINE 300+00

MATCHLINE 870+00

N

SIGN

INL

MH

FOUND

U/C

CC

50'

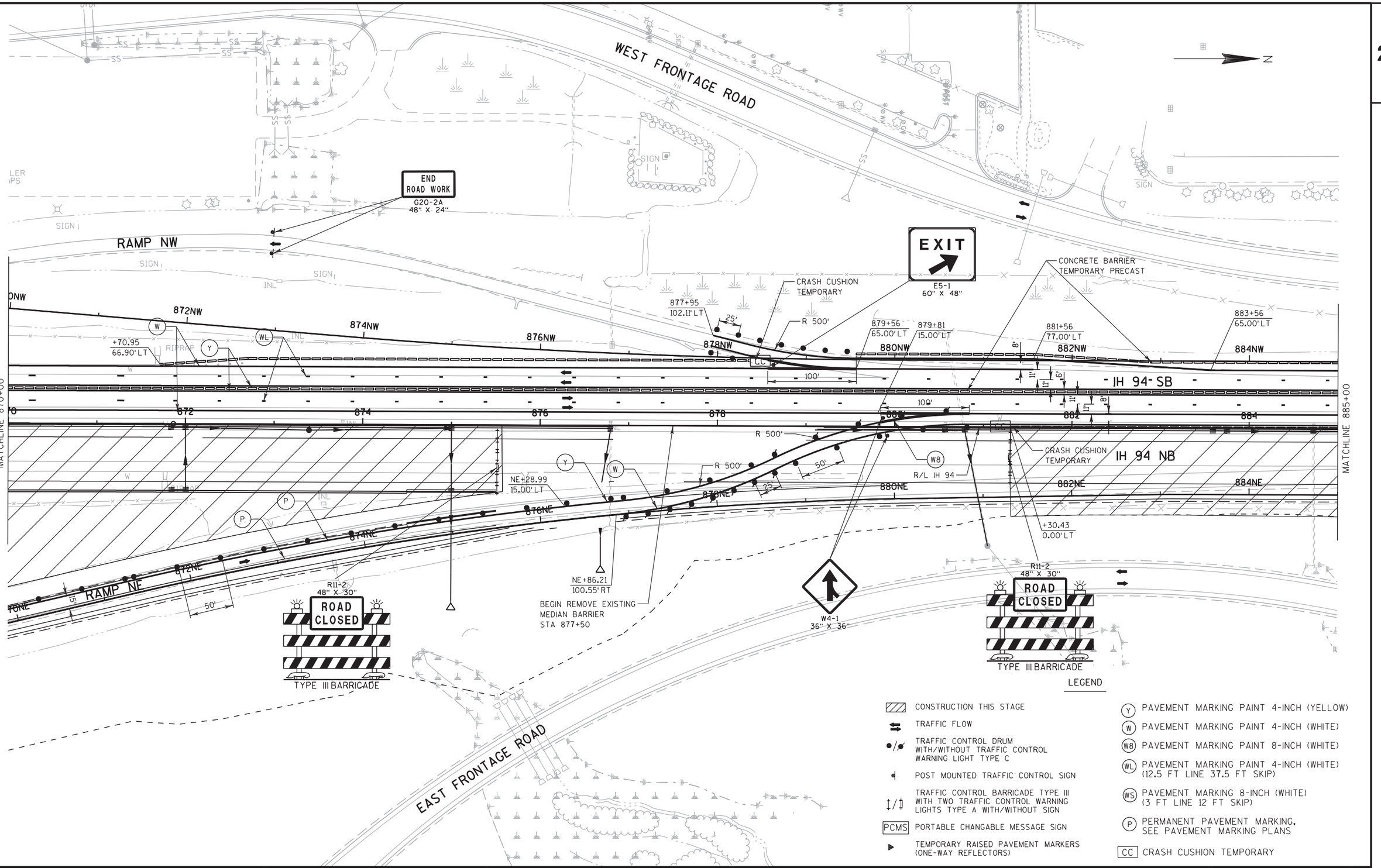
LEGEND

- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- PCMS PORTABLE CHANGABLE MESSAGE SIGN
- TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTORS)
- (YT) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (WT) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (Y) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (W) PAVEMENT MARKING PAINT 4-INCH (WHITE)
- (W8) PAVEMENT MARKING PAINT 8-INCH (WHITE)
- (WL) PAVEMENT MARKING PAINT 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2B CONSTRUCTION	SHEET	E

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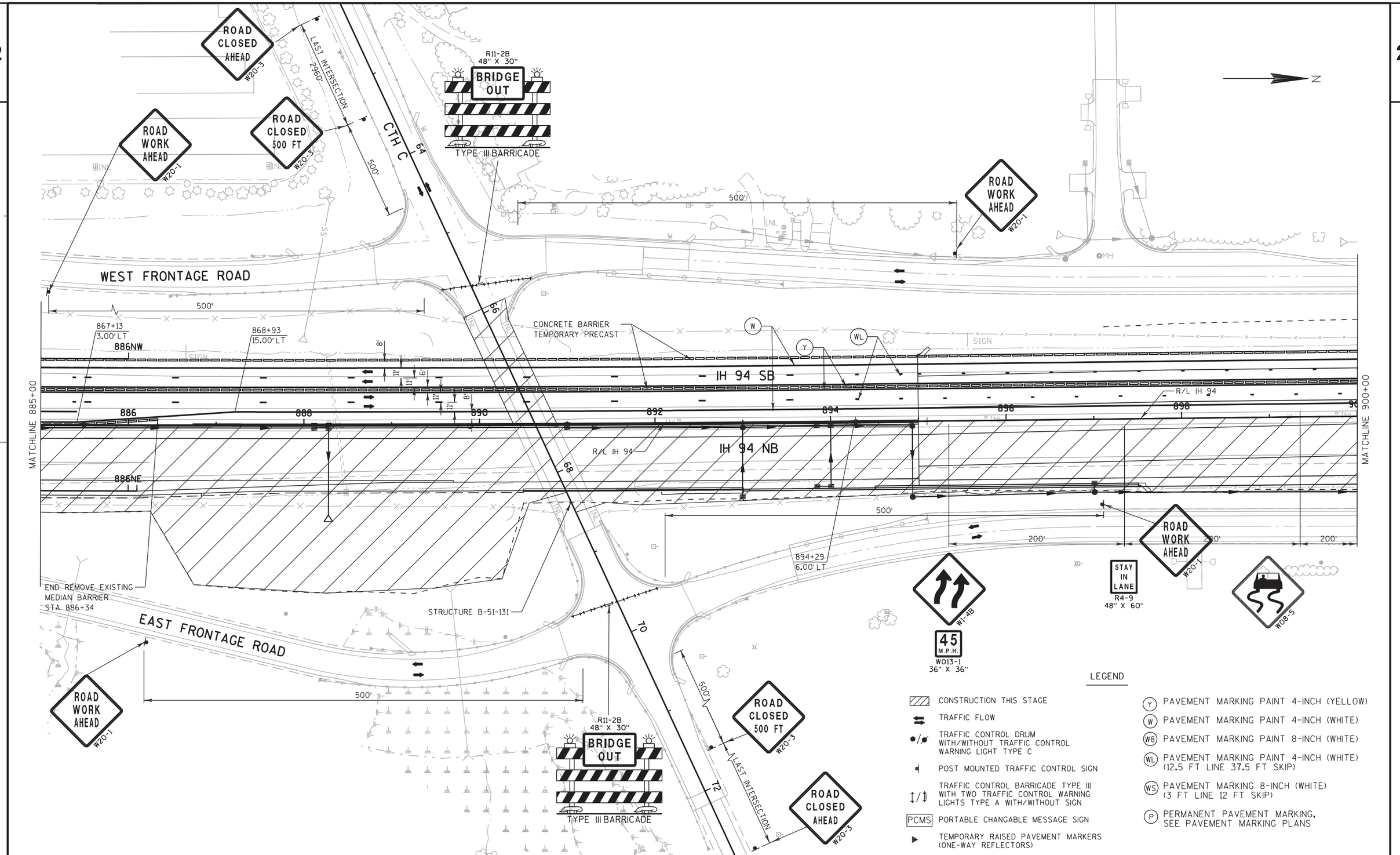


LEGEND

- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
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- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- CC CRASH CUSHION TEMPORARY

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2B CONSTRUCTION	SHEET	E

2

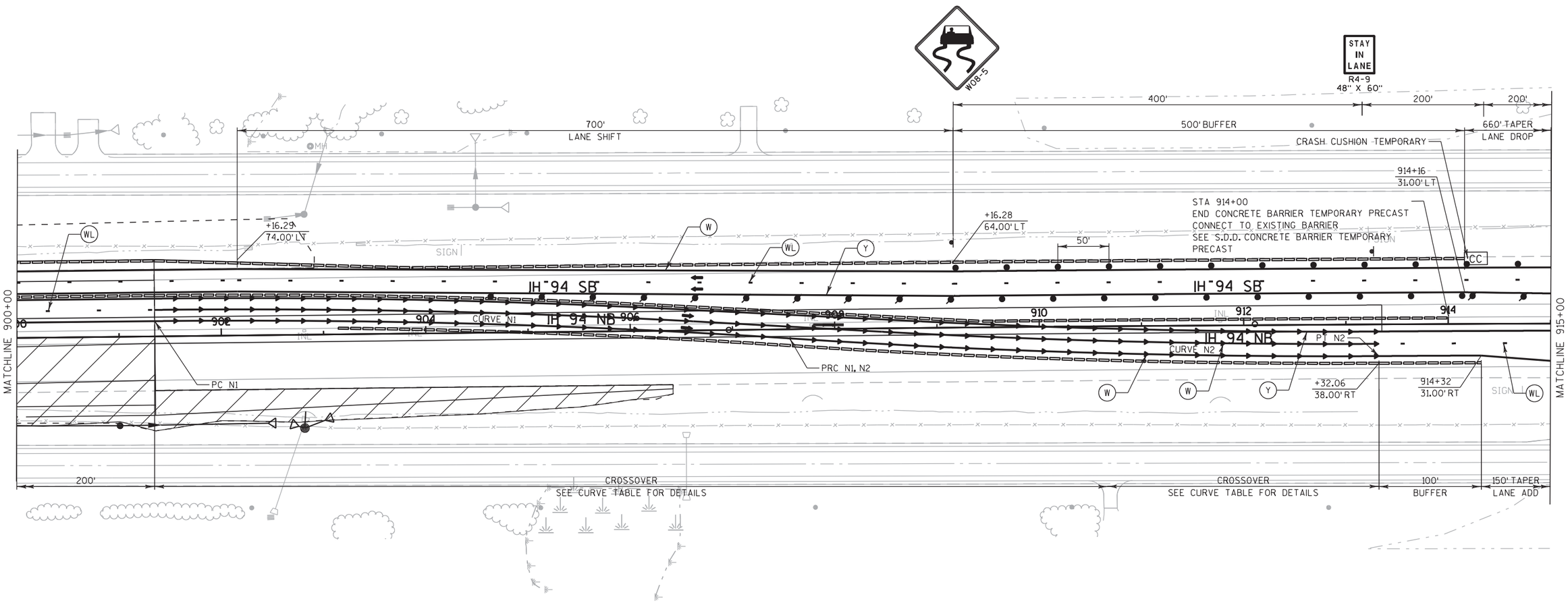


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- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2B CONSTRUCTION	SHEET	E

CURVE DATA														
CURVE NO.	PI	Offset	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	Offset	PT	Offset
N1	904+45.86	15.00' LT	593991.09	189714.58	4°25'03"	0°42'39"	310.86	621.42	5.99	8060.00	901+35.00	15.00' LT	907+55.80	8.93' RT
N2	910+43.51	30.64' RT	594030.49	190312.62	4°05'58"	0°42'39"	288.47	576.70	5.16	8060.00	907+55.80	8.93' RT	913+32.11	31.00' RT



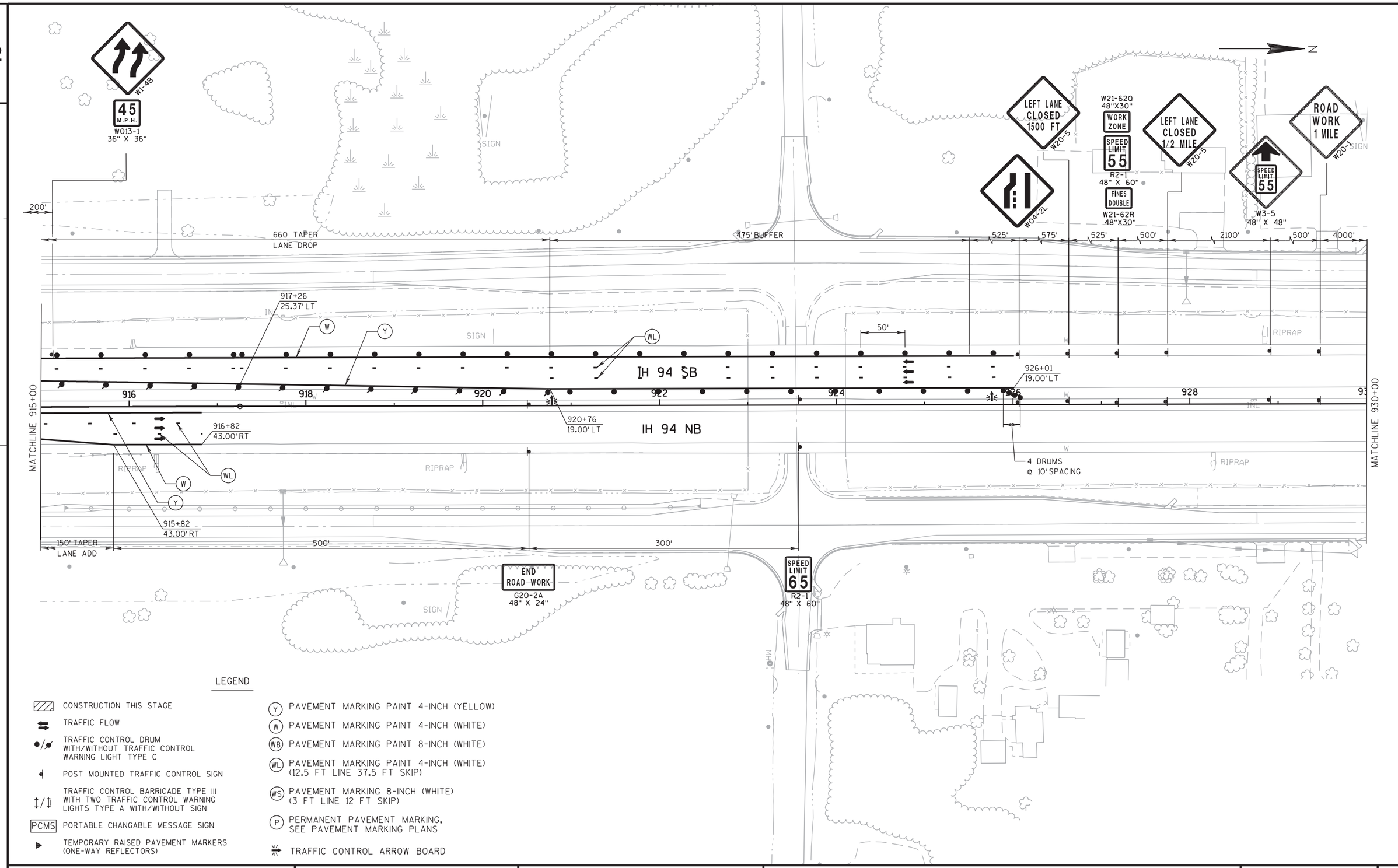
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- TRAFFIC FLOW
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- TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTORS)

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- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- CC CRASH CUSHION TEMPORARY

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2B CONSTRUCTION	SHEET	E

2

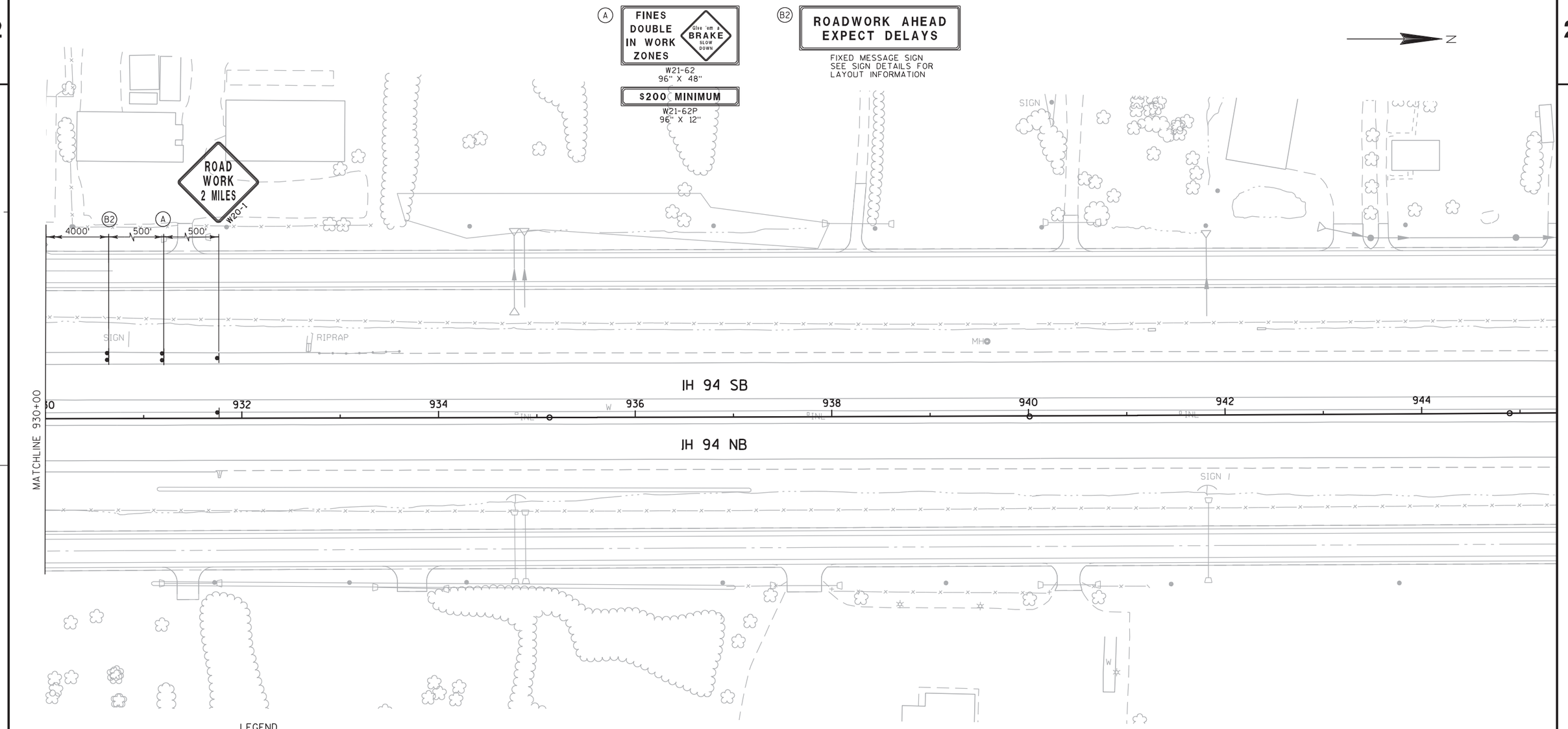


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- TRAFFIC FLOW
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- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2B CONSTRUCTION	SHEET	E

2



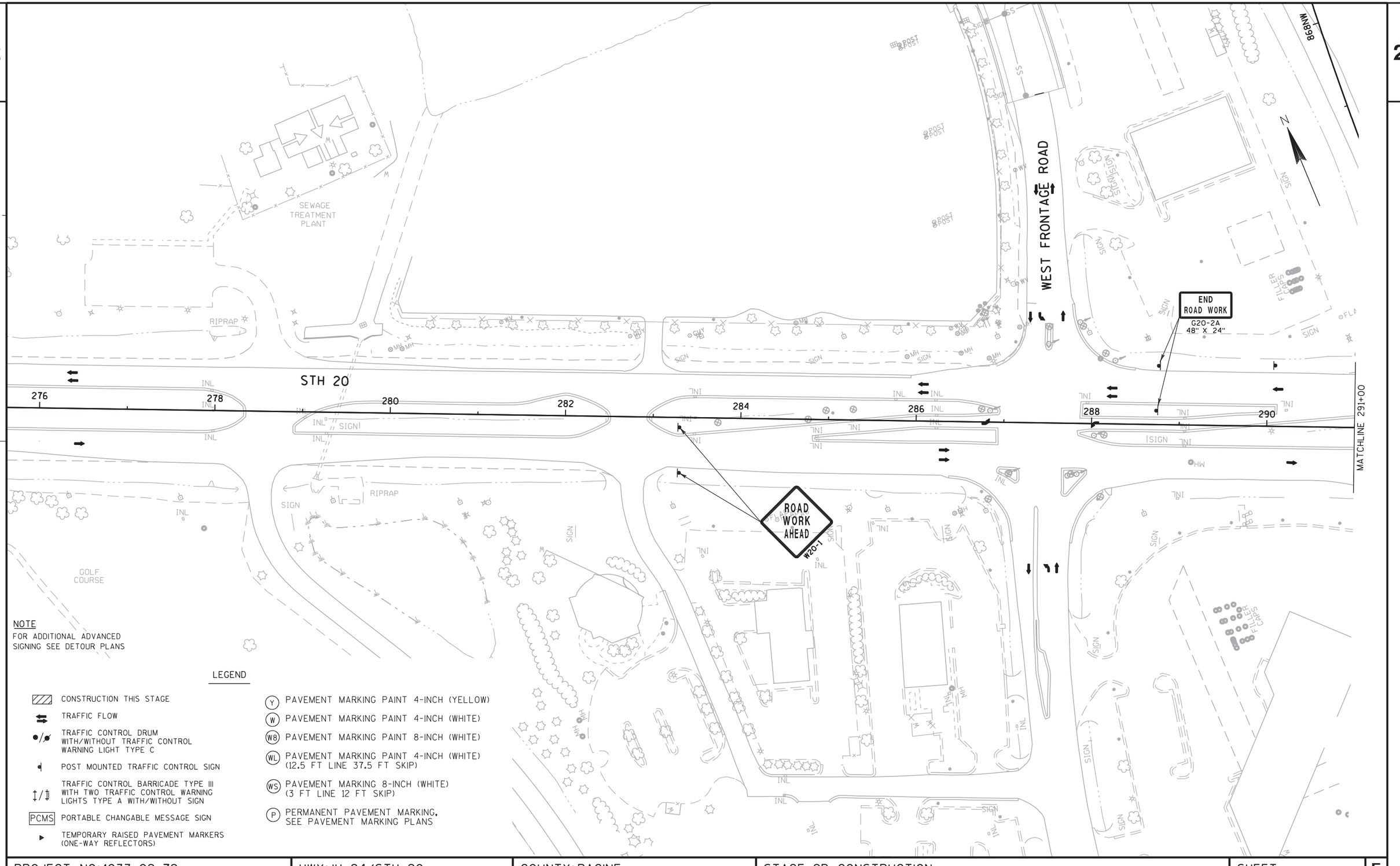
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- CONSTRUCTION THIS STAGE
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2B CONSTRUCTION	SHEET	E

2



NOTE

FOR ADDITIONAL ADVANCED SIGNING SEE DETOUR PLANS

LEGEND

- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
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- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2B CONSTRUCTION	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\026413_s2b.dgn PLOT DATE : 01-AUG-2013 10:48 PLOT BY : MSCD1S PLOT NAME : 026413_s2b PLOT SCALE : 100:1

2

2

EAST FRONTAGE ROAD

MATCHLINE 300+00

STH 20

TAPER 541'
REMOVE EXISTING PAVEMENT MARKINGS

500'

1000'

1000'

W04-2L

LEFT LANE CLOSED AHEAD
W20-5

ROAD WORK AHEAD
W20-1

R11-2
48" X 30"
LANE CLOSED
TYPE III BARRICADE

R11-2
48" X 30"
LANE CLOSED
TYPE III BARRICADE

NOTE
FOR ADDITIONAL ADVANCED SIGNING SEE DETOUR PLANS

LEGEND

- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
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- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 2B CONSTRUCTION	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\026414_s2b.dgn PLOT DATE : 01-AUG-2013 10:48 PLOT BY : MSCD1S PLOT NAME : 026414_s2b PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

STH 20

TOWN OF
YORKVILLE

GRANDVIEW PARKWAY

WEST FRONTAGE ROAD

WEST FRONTAGE ROAD

B-51-131

B-51-129 (SB)

R-51-43

RAMP SW

RAMP NW

IH 94

IH 94

RAMP SE

B-51-130 (NB)

RAMP NE

R-51-42

KILBOURN DRIVE

EAST FRONTAGE ROAD

VILLAGE OF
MOUNT PLEASANT

STH 20

STAGE 3A

CONSTRUCTION

WINTER SHUTDOWN, NO CONSTRUCTION

TRAFFIC

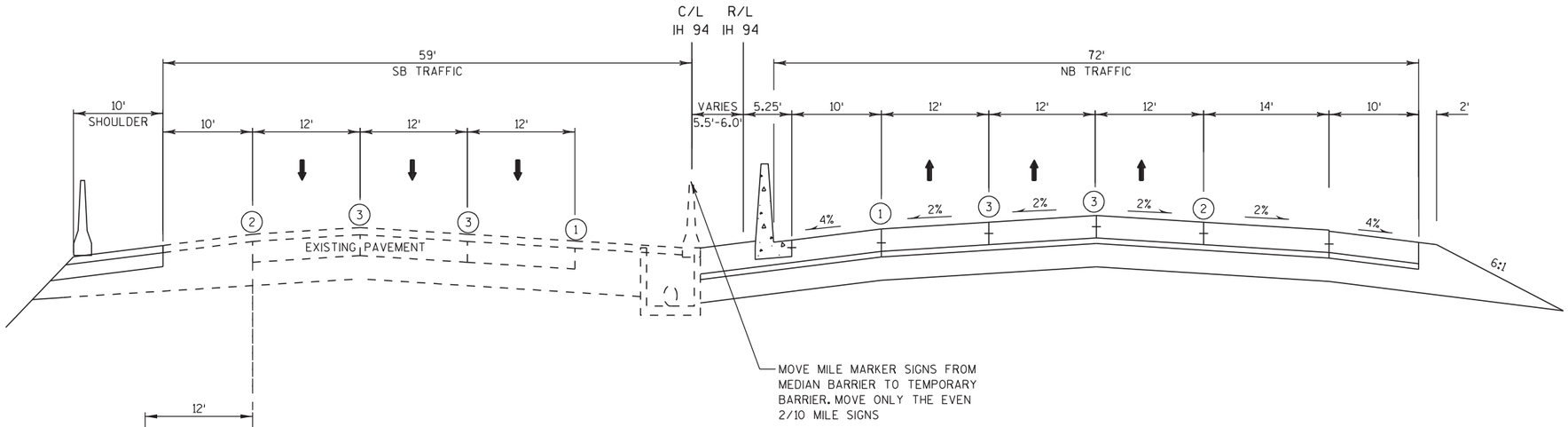
IH 94 - OPEN TO TRAFFIC.
IH 94 NB RAMPS - TRAFFIC IS ON ULTIMATE NB RAMPS.
IH 94 SB RAMPS - TRAFFIC IS ON EXISTING SB RAMPS.
STH 20 - OPEN TO TRAFFIC.
CTH C - OPEN TO TRAFFIC.
EAST FRONTAGE ROAD - OPEN TO TRAFFIC.
WEST FRONTAGE ROAD - OPEN TO TRAFFIC.

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CONSTRUCTION STAGING OVERVIEW: STAGE 3	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\026500_s3.dgn PLOT DATE : 31-JUL-2013 23:03 PLOT BY : MSCD1S PLOT NAME : 026500_s3 PLOT SCALE : 600:1

WISDOT/CADDS SHEET 42

2



EXISTING WALL AND PARAPET
STA 855+41 TO STA 871+78

TYPICAL SECTION

STAGE 3

IH 94

STA 829+00 TO STA 895+00

LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

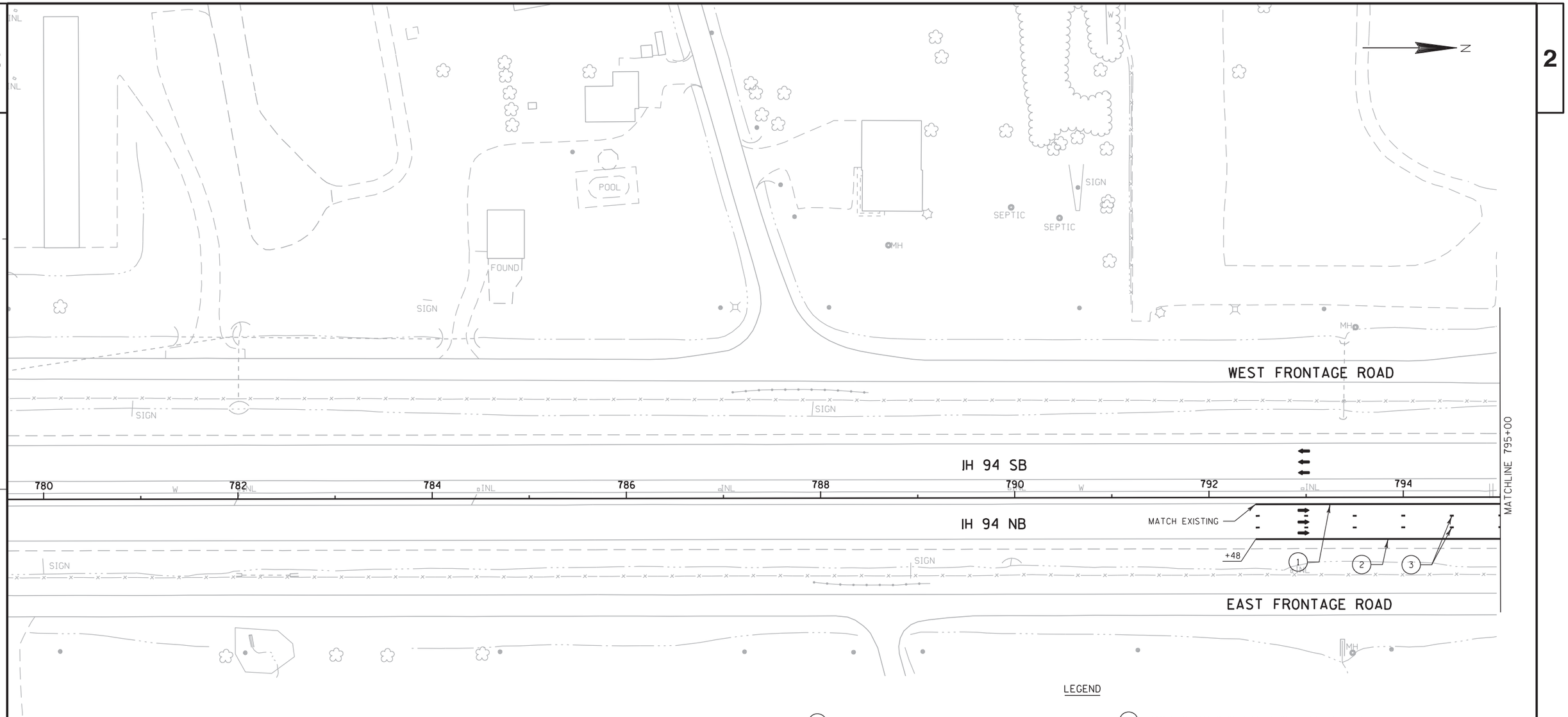
(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5' LINE, 37.5' SKIP)

(P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	TRAFFIC CONTROL - TYPICAL SECTIONS	SHEET	E

2



STAGING LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- PCMS — TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC FLOW ARROW
- CC — CRASH CUSHION TEMPORARY
- WORK ZONE THIS STAGE
- XXXXX — REMOVING PAVEMENT MARKING
- SIGN ON TEMPORARY SUPPORT

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 12 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
6. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
10. PAVEMENT MARKING PAINT 4-INCH (YELLOW)
11. PAVEMENT MARKING PAINT 4-INCH (WHITE)
12. PAVEMENT MARKING PAINT 8-INCH (WHITE)
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15. PAVEMENT MARKING DIAGONAL PAINT 24-INCH (WHITE)
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21. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH EDGELINE (YELLOW)
22. TEMPORARY RAISED PAVEMENT MARKERS
23. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (WHITE)
24. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (YELLOW)
P. PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLAN

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 3 CONSTRUCTION	SHEET	E

2

N

SIGN

WEST FRONTAGE ROAD

SIGN

MATCHLINE 795+00

IH 94 SB

796 798 800 802 804 806 808

IH 94 NB

MATCHLINE 810+00

SIGN

1 2 3

EAST FRONTAGE ROAD

SIGN

STAGING LEGEND

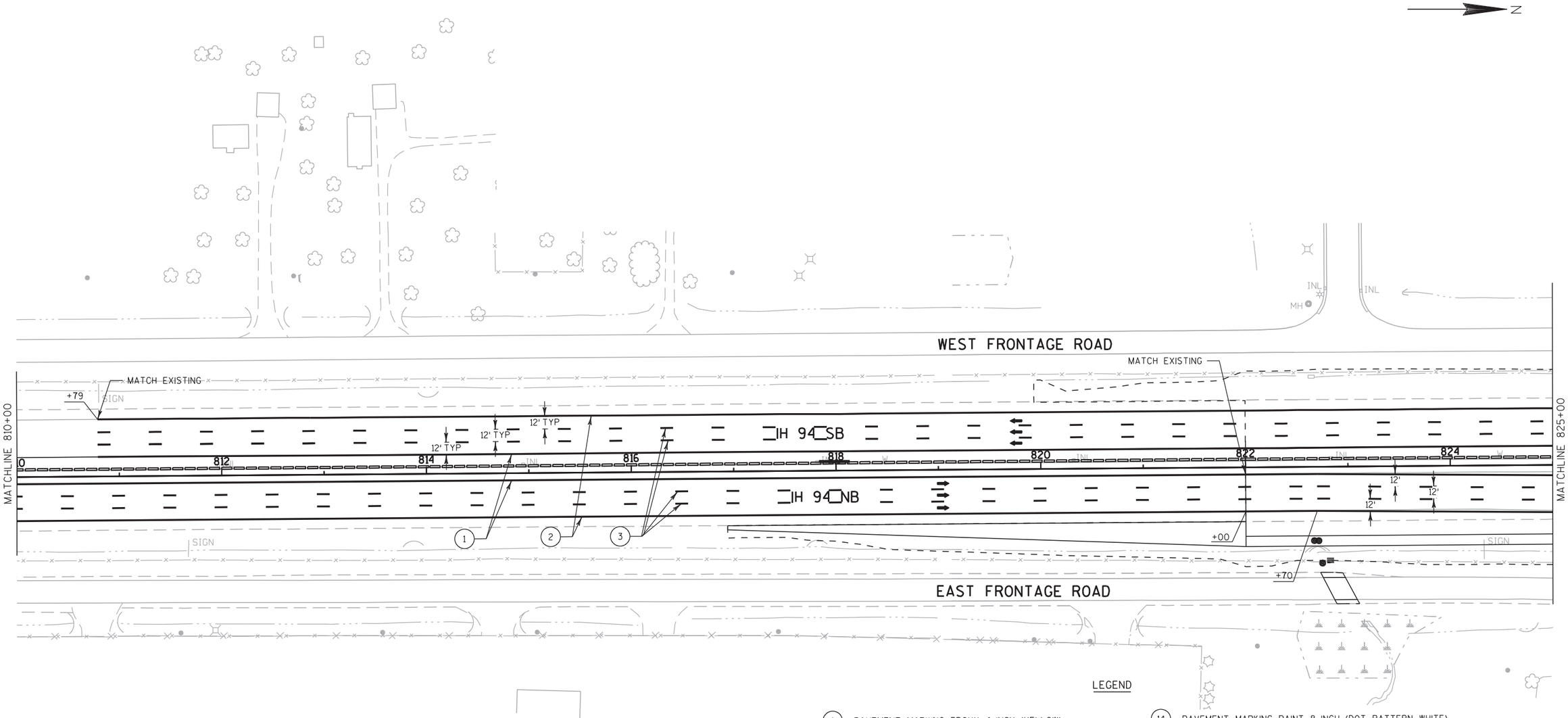
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- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC FLOW ARROW
- CC CRASH CUSHION TEMPORARY
- WORK ZONE THIS STAGE
- XXXXX REMOVING PAVEMENT MARKING
- SIGN ON TEMPORARY SUPPORT

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
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24. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (YELLOW)
- P PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLAN

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 3 CONSTRUCTION	SHEET	E

2



STAGING LEGEND

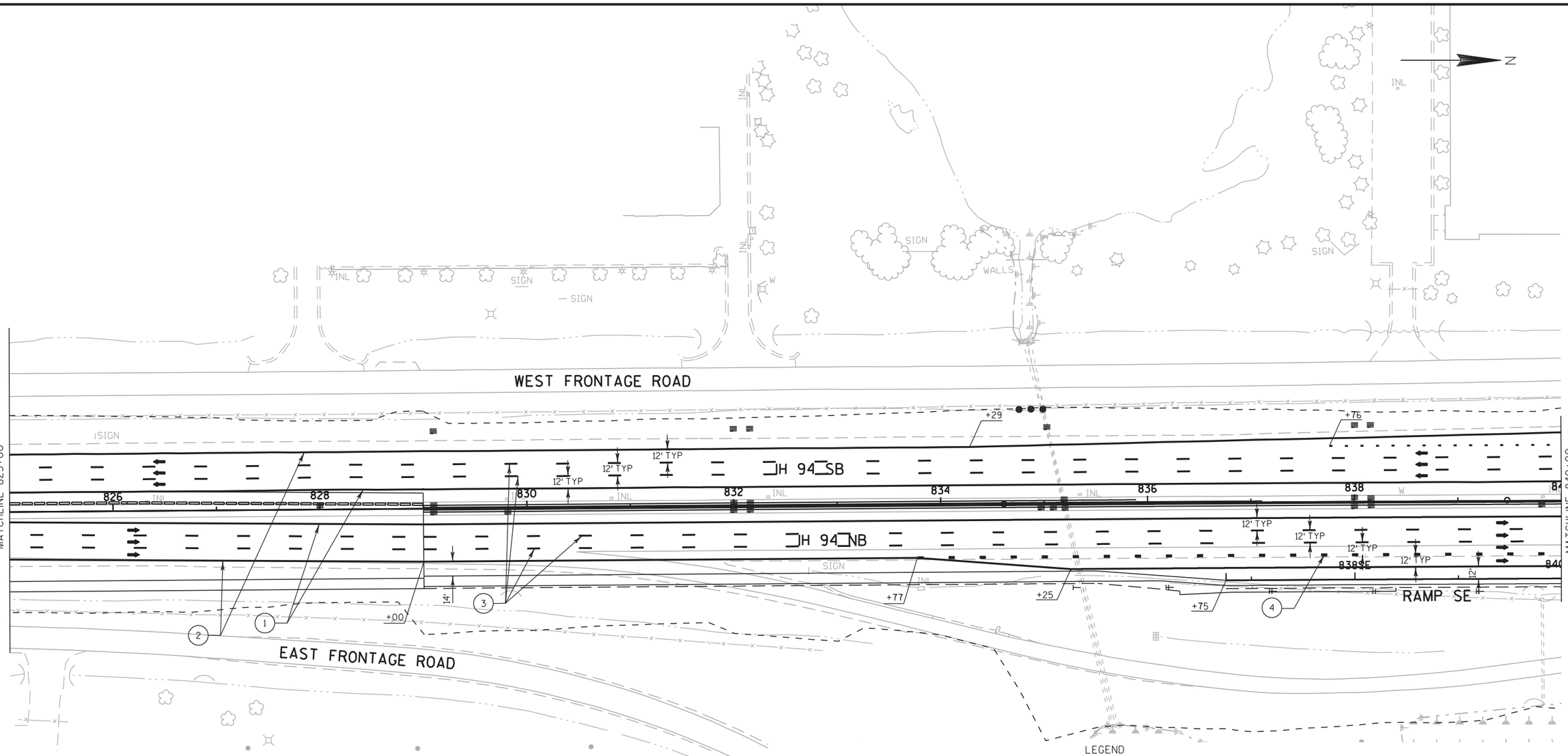
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- SIGN ON PERMANENT SUPPORT
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- TRAFFIC FLOW ARROW
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- P — PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLAN

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 3 CONSTRUCTION	SHEET	E

2



STAGING LEGEND

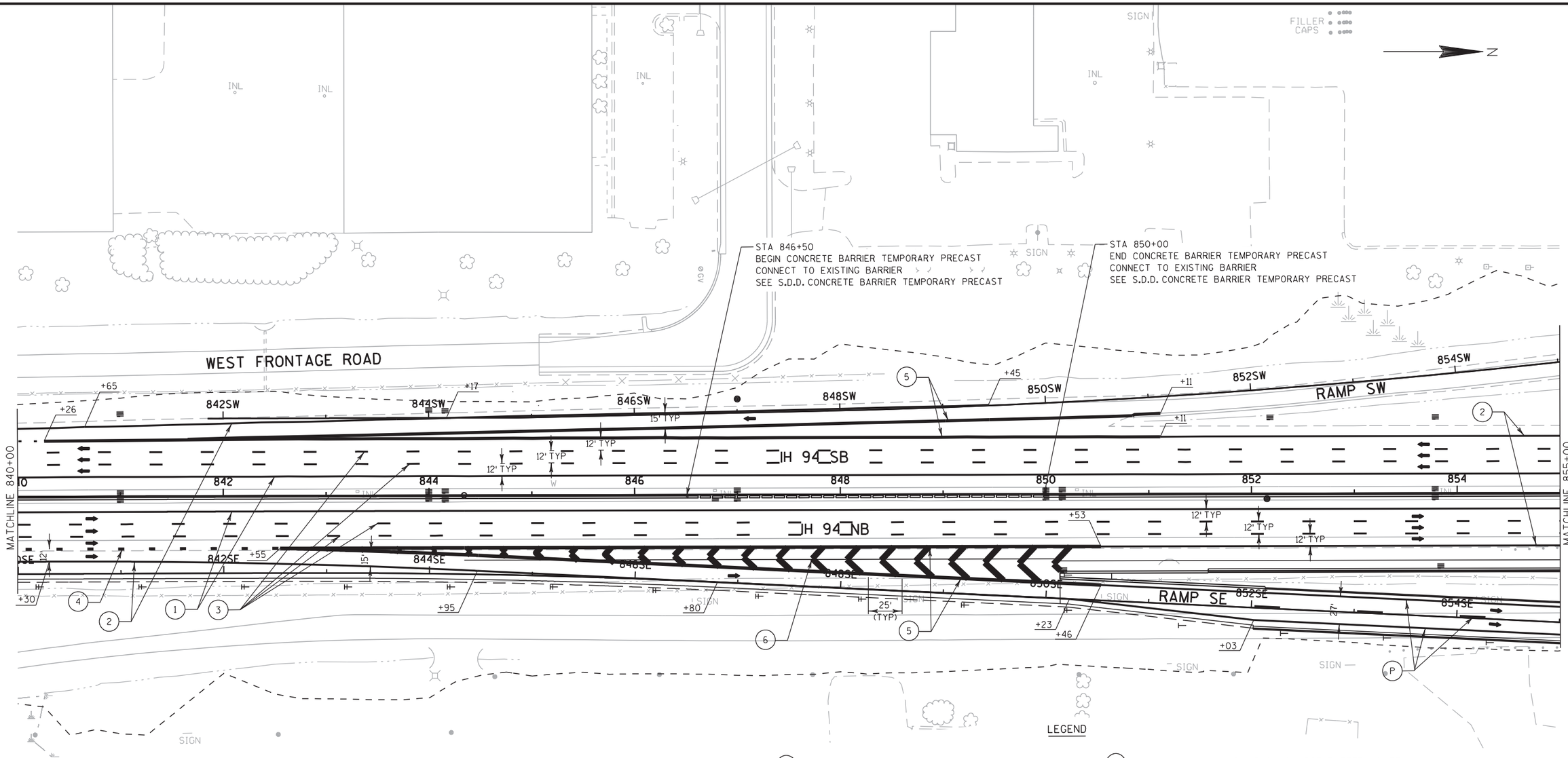
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5. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
6. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
10. PAVEMENT MARKING PAINT 4-INCH (YELLOW)
11. PAVEMENT MARKING PAINT 4-INCH (WHITE)
12. PAVEMENT MARKING PAINT 8-INCH (WHITE)
13. PAVEMENT MARKING PAINT 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
14. PAVEMENT MARKING PAINT 8-INCH (DOT PATTERN WHITE) (3 FT LINE 12 FT SKIP)
15. PAVEMENT MARKING DIAGONAL PAINT 24-INCH (WHITE)
20. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH EDGELINE (WHITE)
21. TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH EDGELINE (YELLOW)
22. TEMPORARY RAISED PAVEMENT MARKERS
23. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (WHITE)
24. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (YELLOW)
P. PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLAN

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 3 CONSTRUCTION	SHEET	E

2



STAGING LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- PCMS — TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC FLOW ARROW
- CC — CRASH CUSHION TEMPORARY
- WORK ZONE THIS STAGE
- XXXXX — REMOVING PAVEMENT MARKING
- SIGN ON TEMPORARY SUPPORT

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
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22. TEMPORARY RAISED PAVEMENT MARKERS
23. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (WHITE)
24. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (YELLOW)
P. PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLAN

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 3 CONSTRUCTION	SHEET	E

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
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22. TEMPORARY RAISED PAVEMENT MARKERS
23. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (WHITE)
24. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (YELLOW)
P. PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLAN

STAGING LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC FLOW ARROW
- CC CRASH CUSHION TEMPORARY
- WORK ZONE THIS STAGE
- XXXXX REMOVING PAVEMENT MARKING
- SIGN ON TEMPORARY SUPPORT

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACIQUE	STAGE 3 CONSTRUCTION	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\026507_s3.dgn PLOT DATE : 31-JUL-2013 23:05 PLOT BY : MSCD1S PLOT NAME : 026507_s3 PLOT SCALE : 100:1

2

WEST FRONTAGE ROAD

RAMP NW

STA 877+50
BEGIN CONCRETE BARRIER TEMPORARY PRECAST
CONNECT TO EXISTING BARRIER
SEE S.D.D. CONCRETE BARRIER TEMPORARY PRECAST

STA 881+30
END CONCRETE BARRIER TEMPORARY PRECAST
CONNECT TO EXISTING BARRIER
SEE S.D.D. CONCRETE BARRIER TEMPORARY PRECAST

IH 94 SB

IH 94 NB

EAST FRONTAGE ROAD

MATCHLINE 870+00

MATCHLINE 885+00

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 12 FT SKIP)
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23. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (WHITE)
24. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (YELLOW)
P. PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLAN

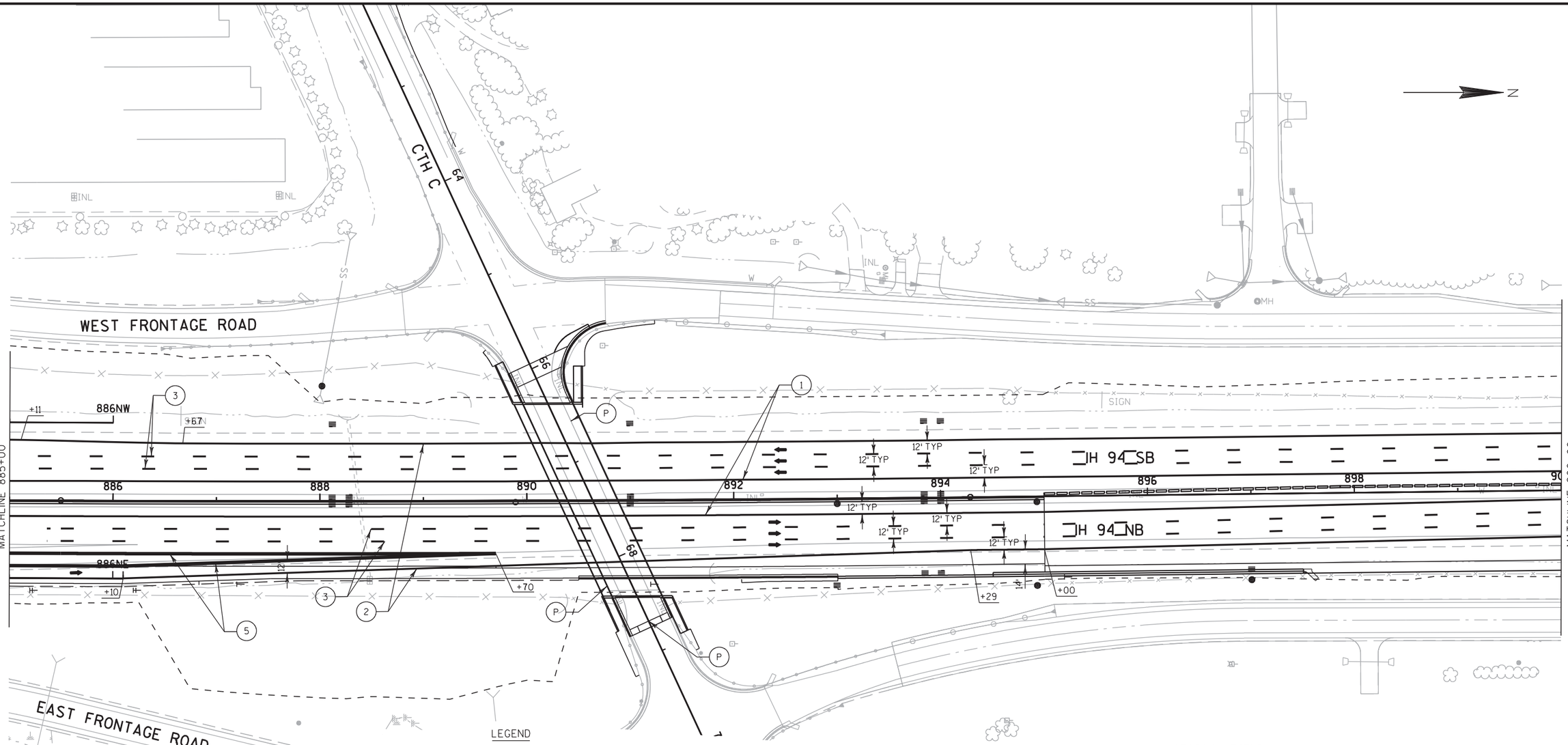
STAGING LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- PCMS — TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC FLOW ARROW
- CC — CRASH CUSHION TEMPORARY
- WORK ZONE THIS STAGE
- XXXXX — REMOVING PAVEMENT MARKING
- SIGN ON TEMPORARY SUPPORT

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 3 CONSTRUCTION	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\026508_s3.dgn PLOT DATE : 31-JUL-2013 23:06 PLOT BY : MSCD1S PLOT NAME : 026508_s3 PLOT SCALE : 100:1

2



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 12 FT SKIP)
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23. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (WHITE)
24. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (YELLOW)
P. PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLAN

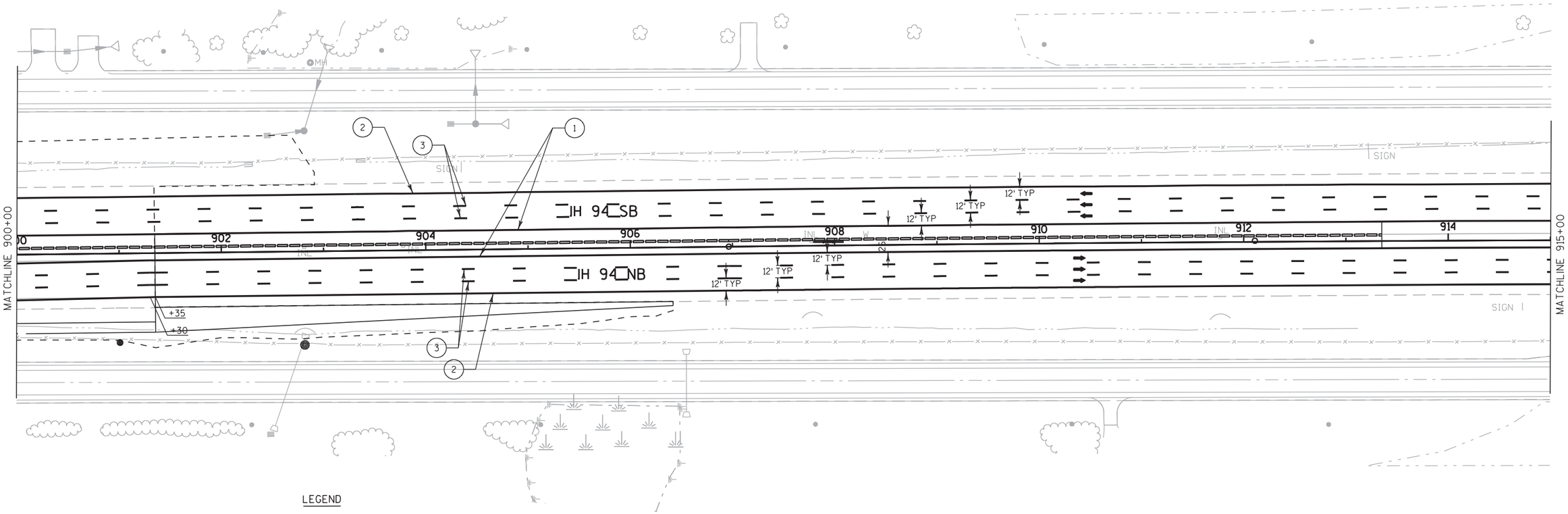
STAGING LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC FLOW ARROW
- CC CRASH CUSHION TEMPORARY
- WORK ZONE THIS STAGE
- XXXXX REMOVING PAVEMENT MARKING
- SIGN ON TEMPORARY SUPPORT

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 3 CONSTRUCTION	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\026509_s3.dgn PLOT DATE : 31-JUL-2013 23:06 PLOT BY : MSCD1S PLOT NAME : 026509_s3 PLOT SCALE : 100:1

2



LEGEND

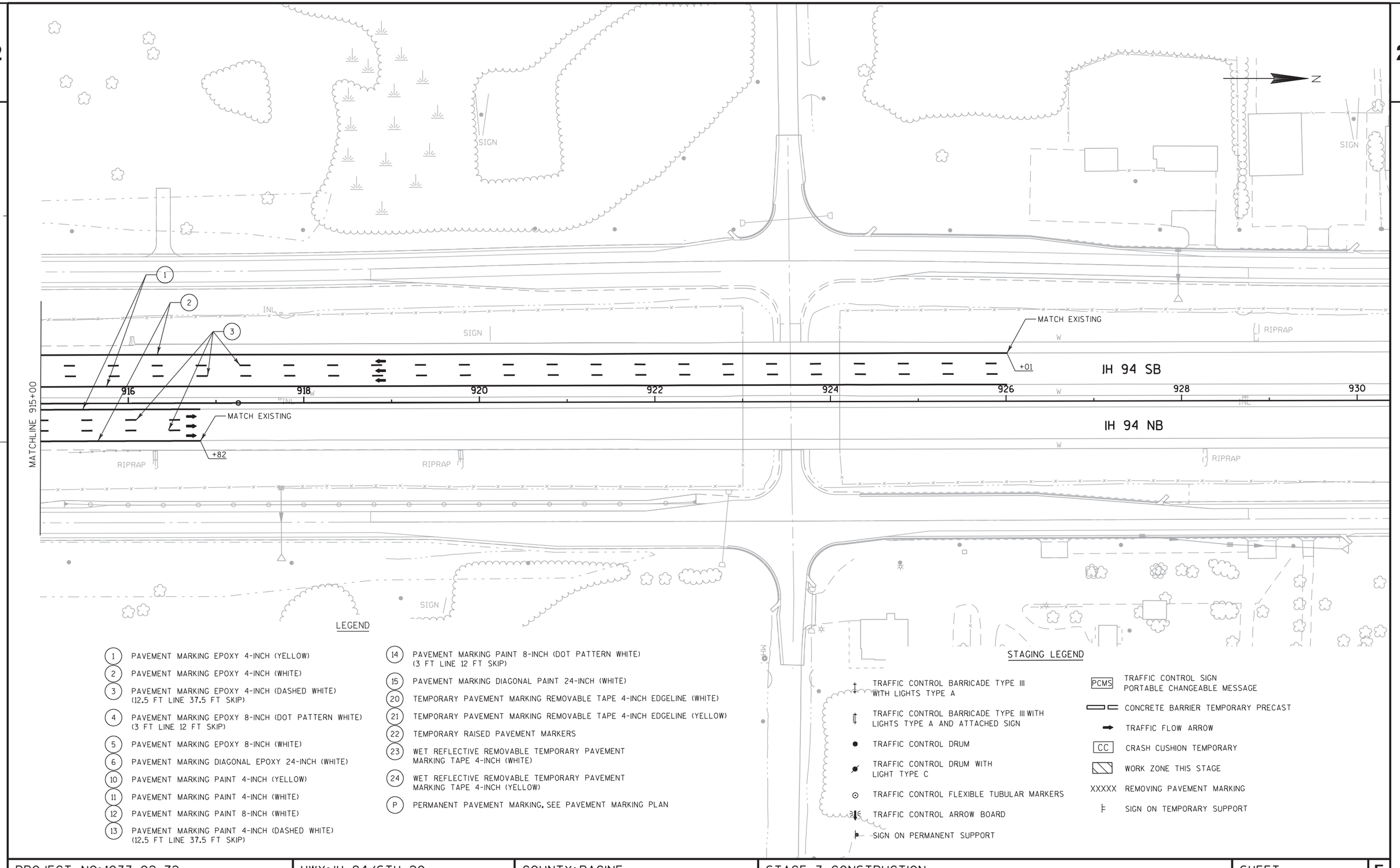
1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
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6. PAVEMENT MARKING DIAGONAL EPOXY 24-INCH (WHITE)
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22. TEMPORARY RAISED PAVEMENT MARKERS
23. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (WHITE)
24. WET REFLECTIVE REMOVABLE TEMPORARY PAVEMENT MARKING TAPE 4-INCH (YELLOW)
P. PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLAN

STAGING LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC FLOW ARROW
- CC CRASH CUSHION TEMPORARY
- WORK ZONE THIS STAGE
- XXXXX REMOVING PAVEMENT MARKING
- SIGN ON TEMPORARY SUPPORT

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 3 CONSTRUCTION	SHEET	E

2



LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
4. PAVEMENT MARKING EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 12 FT SKIP)
5. PAVEMENT MARKING EPOXY 8-INCH (WHITE)
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P. PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLAN

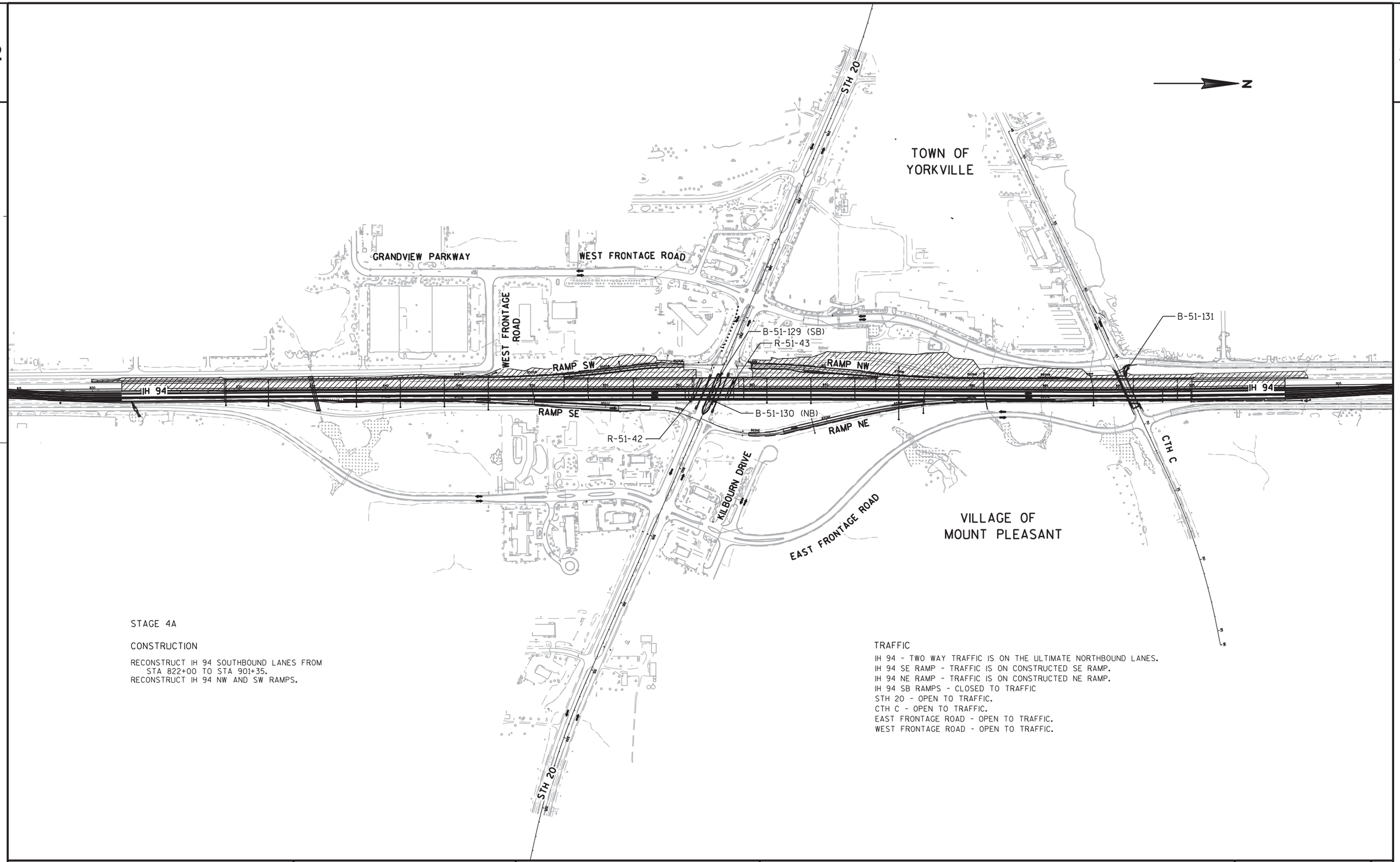
STAGING LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- TRAFFIC CONTROL DRUM
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- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKERS
- TRAFFIC CONTROL ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- CONCRETE BARRIER TEMPORARY PRECAST
- TRAFFIC FLOW ARROW
- CC CRASH CUSHION TEMPORARY
- WORK ZONE THIS STAGE
- XXXXX REMOVING PAVEMENT MARKING
- SIGN ON TEMPORARY SUPPORT

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 3 CONSTRUCTION	SHEET	E

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2



STAGE 4A

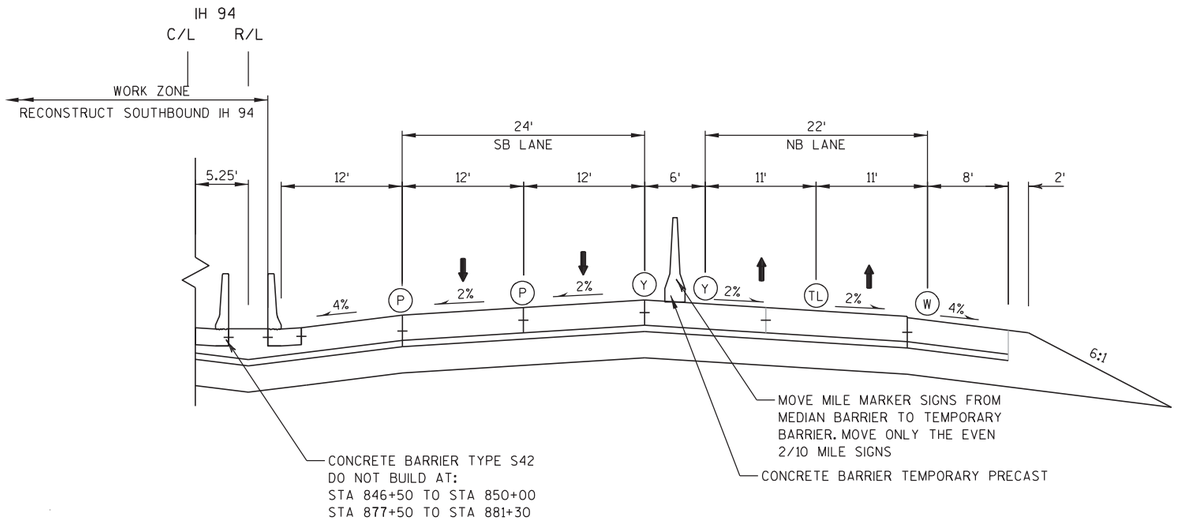
CONSTRUCTION

RECONSTRUCT IH 94 SOUTHBOUND LANES FROM
STA 822+00 TO STA 901+35.
RECONSTRUCT IH 94 NW AND SW RAMPS.

TRAFFIC

IH 94 - TWO WAY TRAFFIC IS ON THE ULTIMATE NORTHBOUND LANES.
IH 94 SE RAMP - TRAFFIC IS ON CONSTRUCTED SE RAMP.
IH 94 NE RAMP - TRAFFIC IS ON CONSTRUCTED NE RAMP.
IH 94 SB RAMPS - CLOSED TO TRAFFIC
STH 20 - OPEN TO TRAFFIC.
CTH C - OPEN TO TRAFFIC.
EAST FRONTAGE ROAD - OPEN TO TRAFFIC.
WEST FRONTAGE ROAD - OPEN TO TRAFFIC.

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CONSTRUCTION STAGING OVERVIEW: 4A	SHEET	E



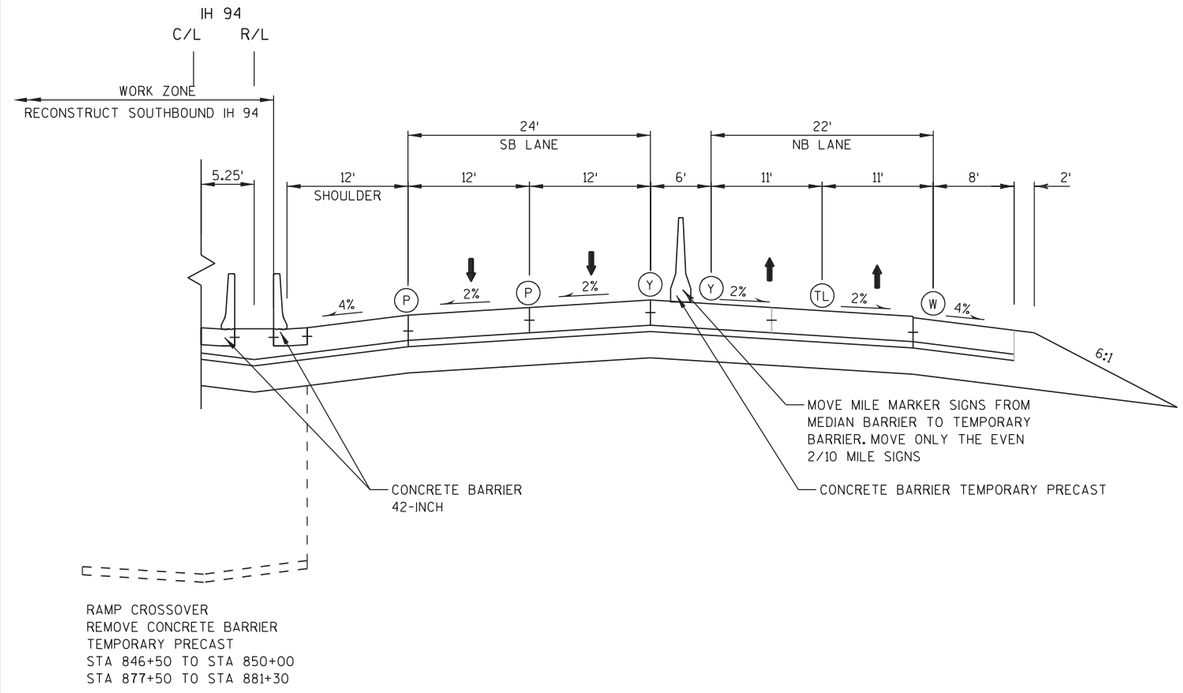
TYPICAL SECTION
STAGE 4A

STA 829+00 TO STA 895+00

LEGEND

- (Y) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (W) PAVEMENT MARKING PAINT 4-INCH (WHITE)
- (TL) PAVEMENT MARKING PAINT, LANE LINE
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS

TRAFFIC CONTROL DRUMS SPACED AT 50' CENTER TO CENTER SPACING



TYPICAL SECTION
STAGE 4B

STA 829+00 TO STA 895+00

LEGEND

- (Y) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (W) PAVEMENT MARKING PAINT 4-INCH (WHITE)
- (TL) PAVEMENT MARKING PAINT, LANE LINE
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS

TRAFFIC CONTROL DRUMS SPACED AT 50' CENTER TO CENTER SPACING

2

(A) FINES DOUBLE IN WORK ZONES — Give 'em BRAKE SLOW DOWN
W21-62
96" X 48"

$200 MINIMUM
W21-62P
96" X 12"

(B1) ROADWORK AHEAD EXPECT DELAYS
FIXED MESSAGE SIGN
SEE SIGN DETAILS FOR
LAYOUT INFORMATION

N

POOL
FOUND
SIGN
SEPTIC
SEPTIC
MH
MH
SIGN
SIGN
SIGN
SIGN

ROAD WORK 2 MILES W20-1

ROAD WORK 1 MILE W20-1

SPEED LIMIT 55 W3-5
48" X 48"

LEFT LANE CLOSED 1/2 MILE W20-5

SPEED LIMIT 55 R2-1
48" X 60"
FINES DOUBLE
W21-62R
48"X30"

LEFT LANE CLOSED 1500 FT W20-5

W04-2L

4 DRUMS
@ 10' SPACING

IH 94 SB

780 W 782 NL 784 NL 786 NL 788 NL 790 W 792 NL 794

MATCHLINE 795+00

IH 94 NB

500' (A) 500' (B1) 4000' 500' 2100' 500' 525' 575' 525' 475' BUFFER

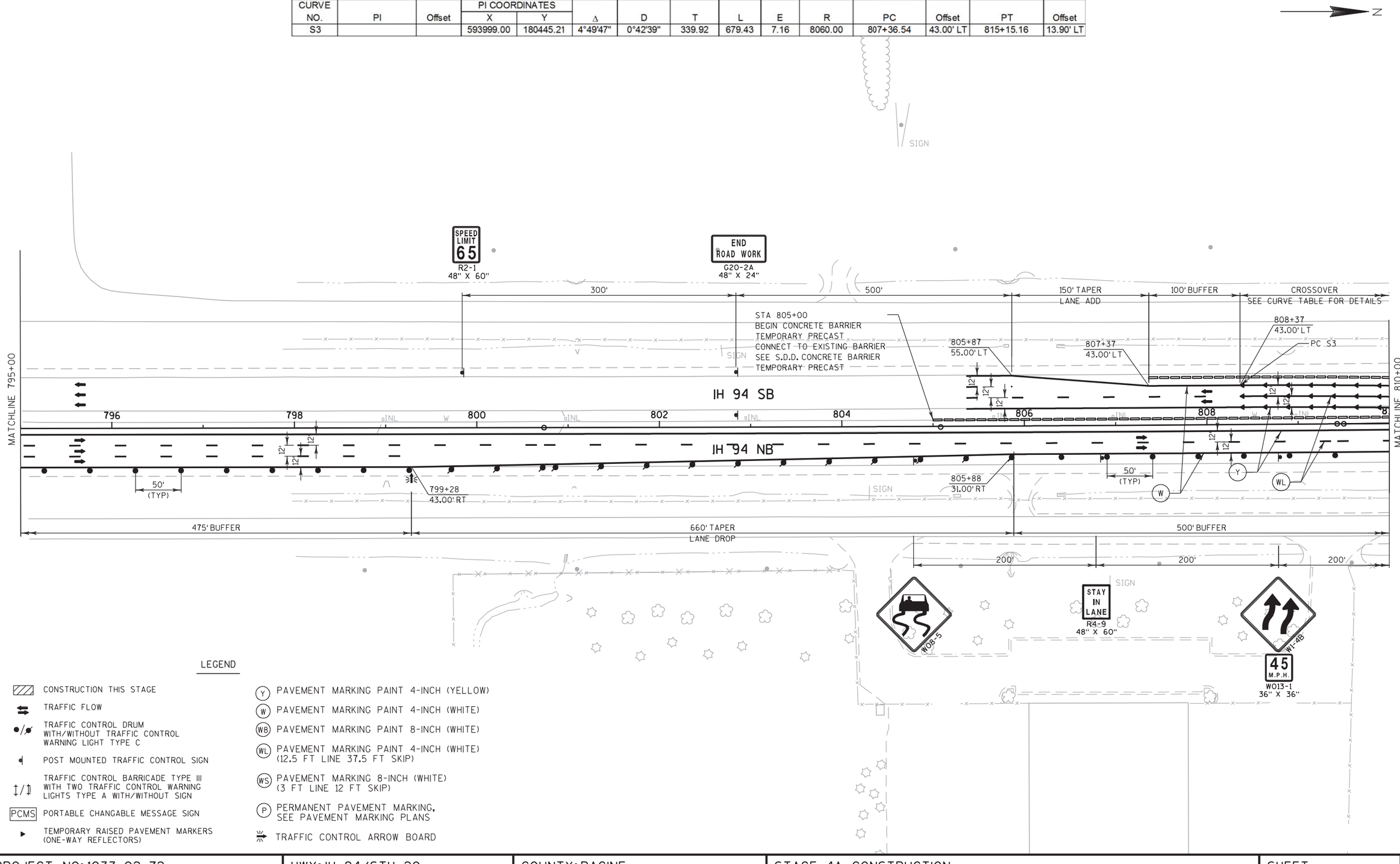
25'

LEGEND

- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- PCMS PORTABLE CHANGABLE MESSAGE SIGN
- TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTORS)
- (Y) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (W) PAVEMENT MARKING PAINT 4-INCH (WHITE)
- (W8) PAVEMENT MARKING PAINT 8-INCH (WHITE)
- (WL) PAVEMENT MARKING PAINT 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4A CONSTRUCTION	SHEET	E

CURVE DATA														
CURVE NO.	PI	Offset	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	Offset	PT	Offset
S3			593999.00	180445.21	4°49'47"	0°42'39"	339.92	679.43	7.16	8060.00	807+36.54	43.00' LT	815+15.16	13.90' LT

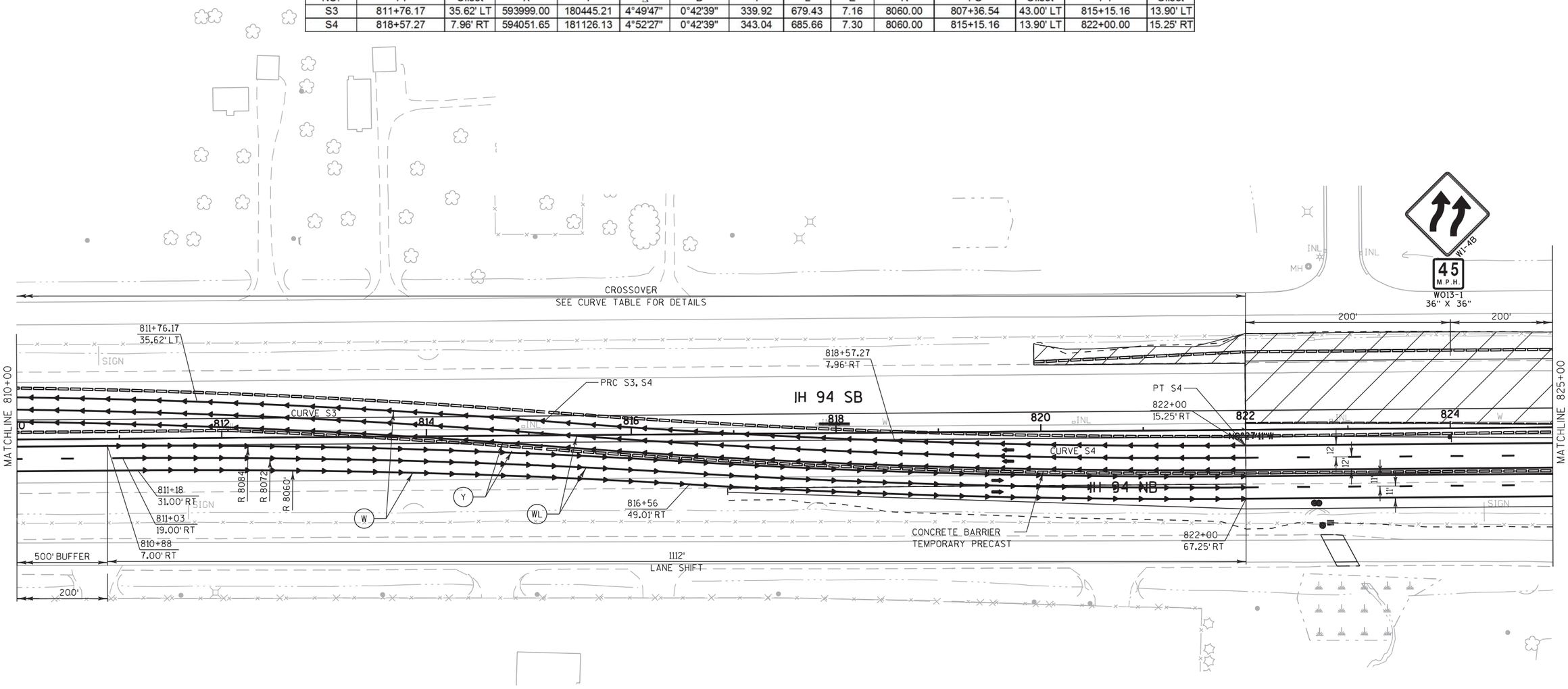


LEGEND

- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- PCMS PORTABLE CHANGABLE MESSAGE SIGN
- TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTORS)
- (Y) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
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- (WL) PAVEMENT MARKING PAINT 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4A CONSTRUCTION	SHEET	E

CURVE DATA														
CURVE NO.	PI	Offset	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	Offset	PT	Offset
S3	811+76.17	35.62' LT	593999.00	180445.21	4°49'47"	0°42'39"	339.92	679.43	7.16	8060.00	807+36.54	43.00' LT	815+15.16	13.90' LT
S4	818+57.27	7.96' RT	594051.65	181126.13	4°52'27"	0°42'39"	343.04	685.66	7.30	8060.00	815+15.16	13.90' LT	822+00.00	15.25' RT

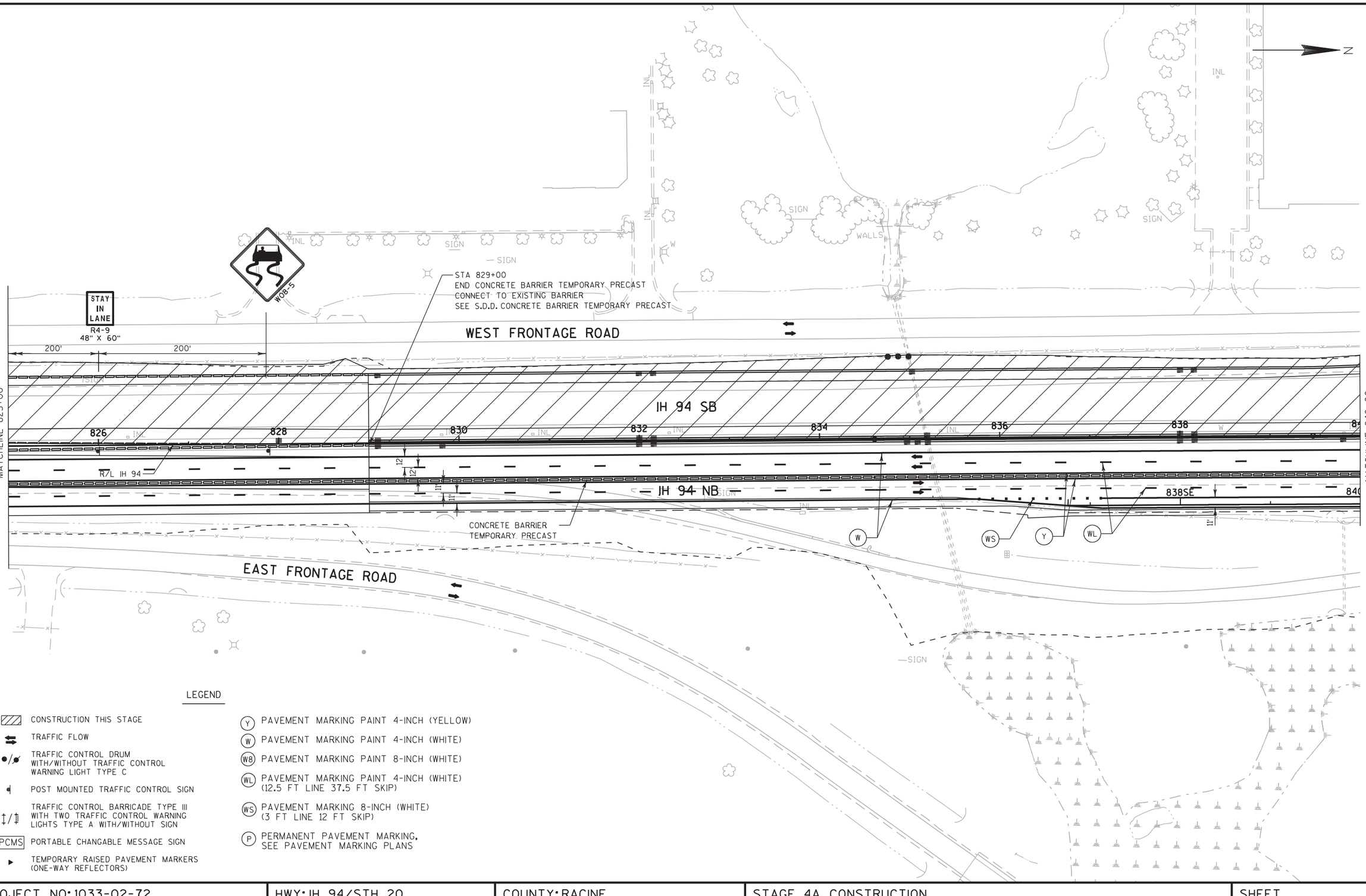


LEGEND

- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- PCMS PORTABLE CHANGABLE MESSAGE SIGN
- TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTORS)
- (Y) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (W) PAVEMENT MARKING PAINT 4-INCH (WHITE)
- (W8) PAVEMENT MARKING PAINT 8-INCH (WHITE)
- (WL) PAVEMENT MARKING PAINT 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4A CONSTRUCTION	SHEET	E

2



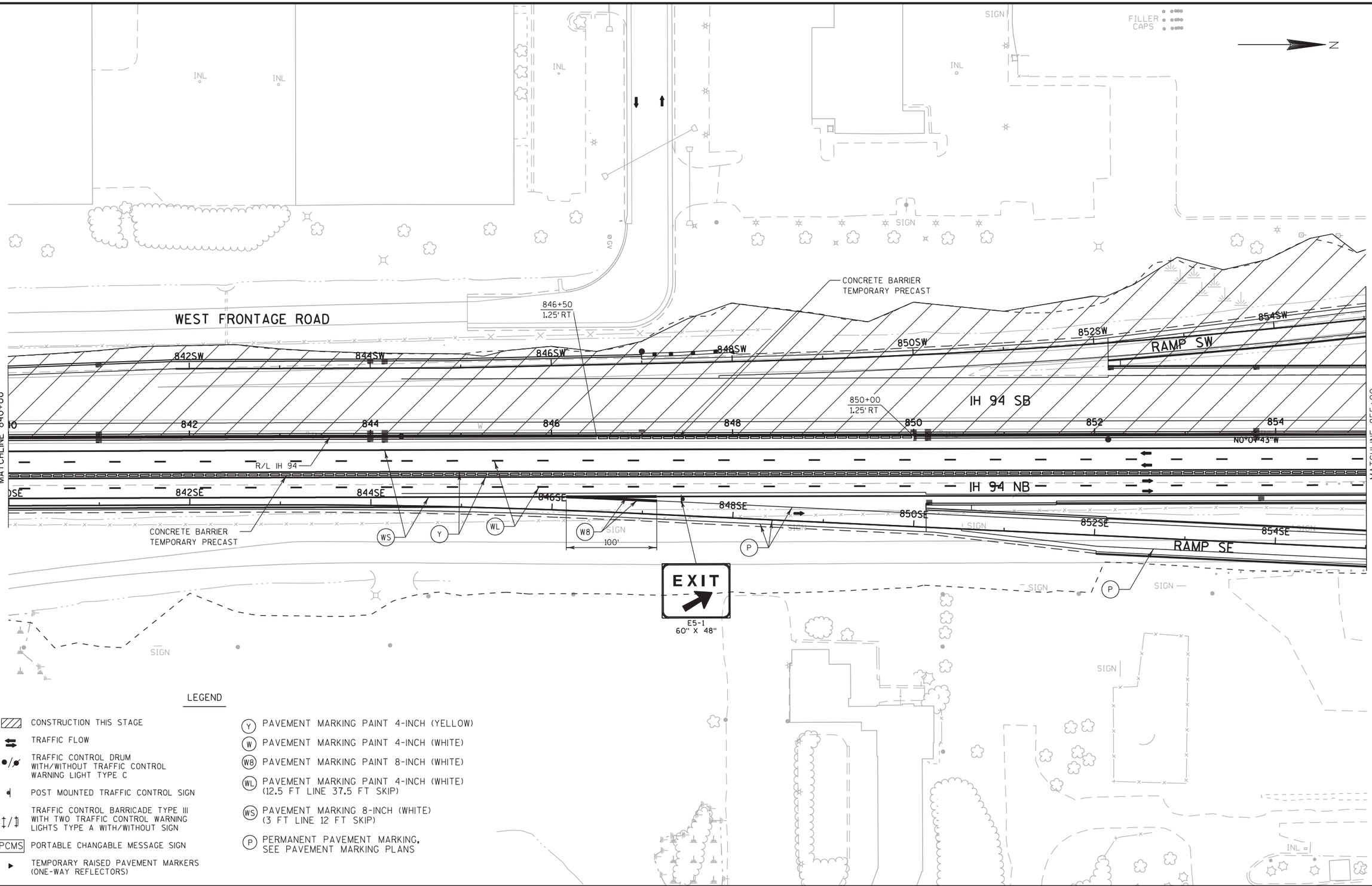
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4A CONSTRUCTION	SHEET	E

2



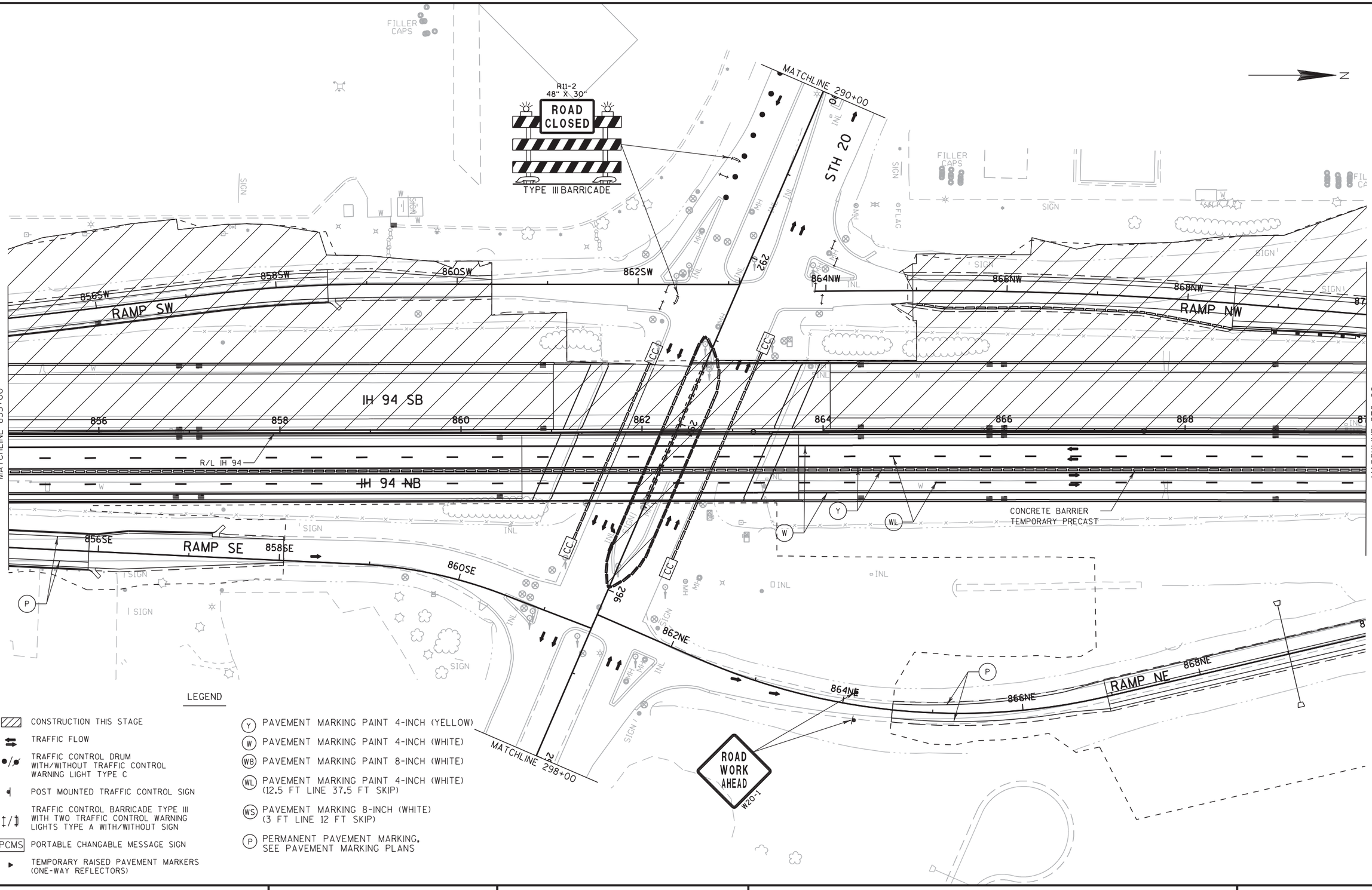
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4A CONSTRUCTION	SHEET	E

2



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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4A CONSTRUCTION	SHEET	E

2

WEST FRONTAGE ROAD

N

CONCRETE BARRIER
TEMPORARY PRECAST

RAMP NW

872NW 874NW 876NW 878NW 880NW 882NW 884NW

IH 94 SB

877+50
1.25' RT

881+30
1.25' RT

872 874 876 878 880 882 884

N01°35'E

MATCHLINE 870+00

MATCHLINE 885+00

R/L IH 94

CONCRETE BARRIER
TEMPORARY PRECAST

IH 94 NB

878NE 880NE 882NE 884NE

876NE 874NE 872NE

RAMP NE

W W8 WL Y

100' 600'

W4-1
36" X 36"

EAST FRONTAGE ROAD

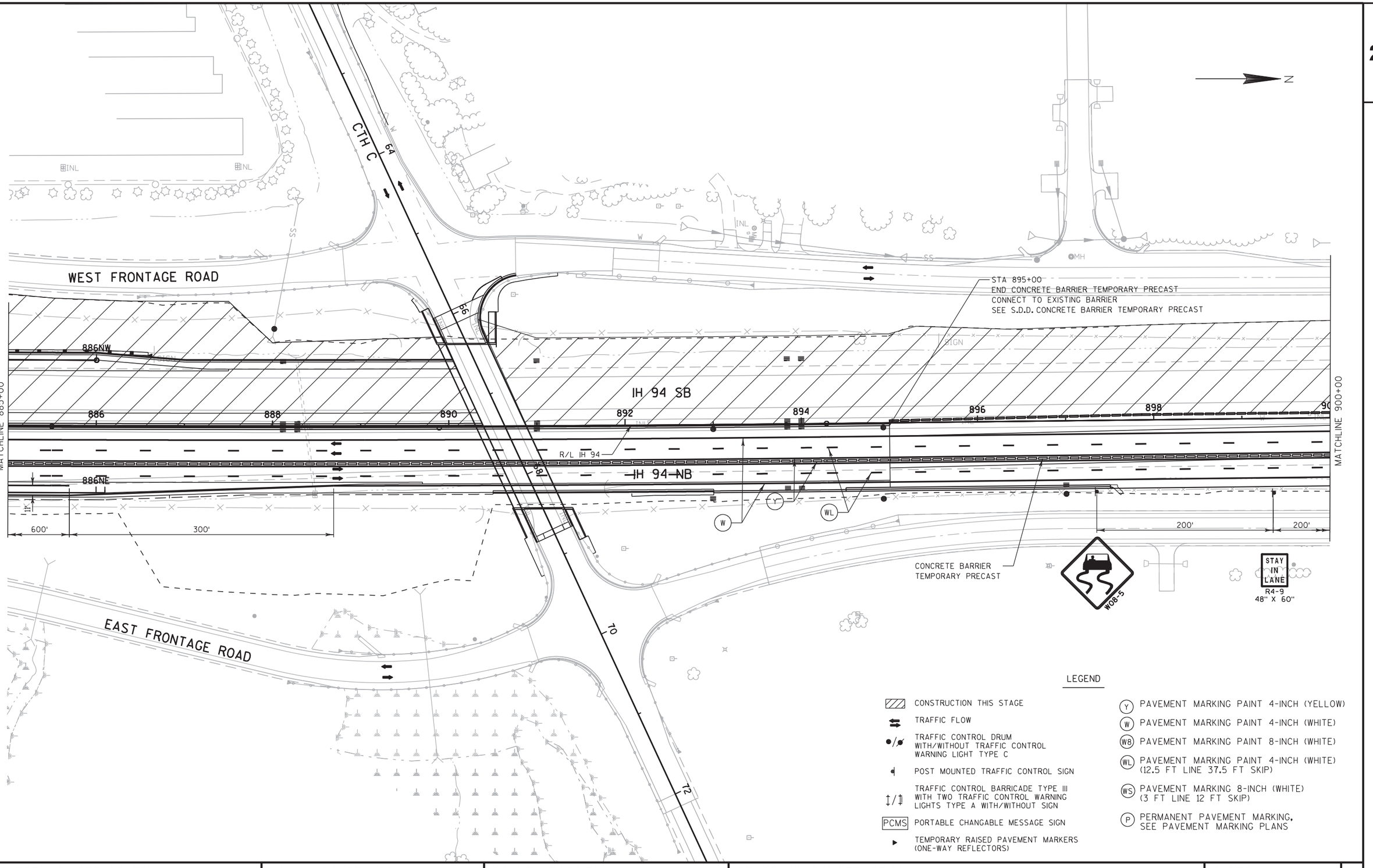
LEGEND

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- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4A CONSTRUCTION	SHEET	E

2



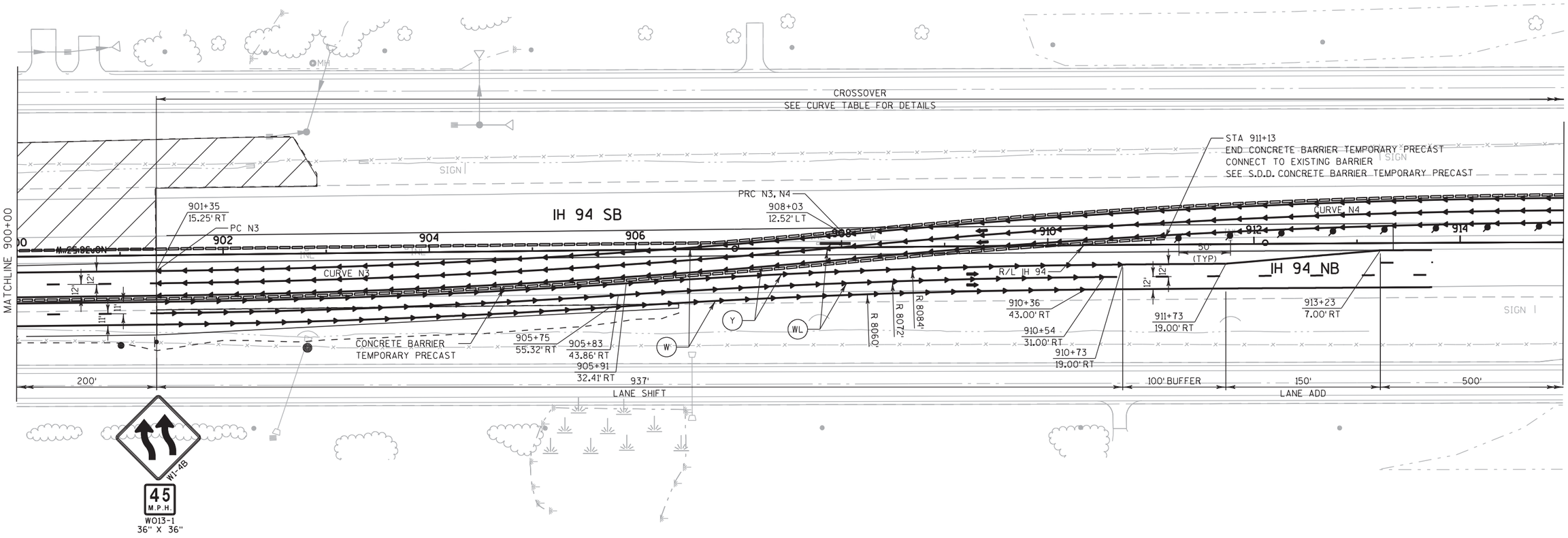
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4A CONSTRUCTION	SHEET	E

CURVE DATA

CURVE NO.	PI	Offset	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	Offset	PT	Offset
N3	904+69.22	8.32' RT	594021.07	189738.57	4°45'11"	0°42'39"	334.51	668.64	6.94	8060.00	901+35.00	15.25' RT	908+02.85	12.52' LT
N4	911+65.63	35.38' LT	593955.34	190433.82	5°10'10"	0°42'39"	363.85	727.21	8.21	8060.00	908+02.85	12.52' LT	915+29.00	43.00' LT



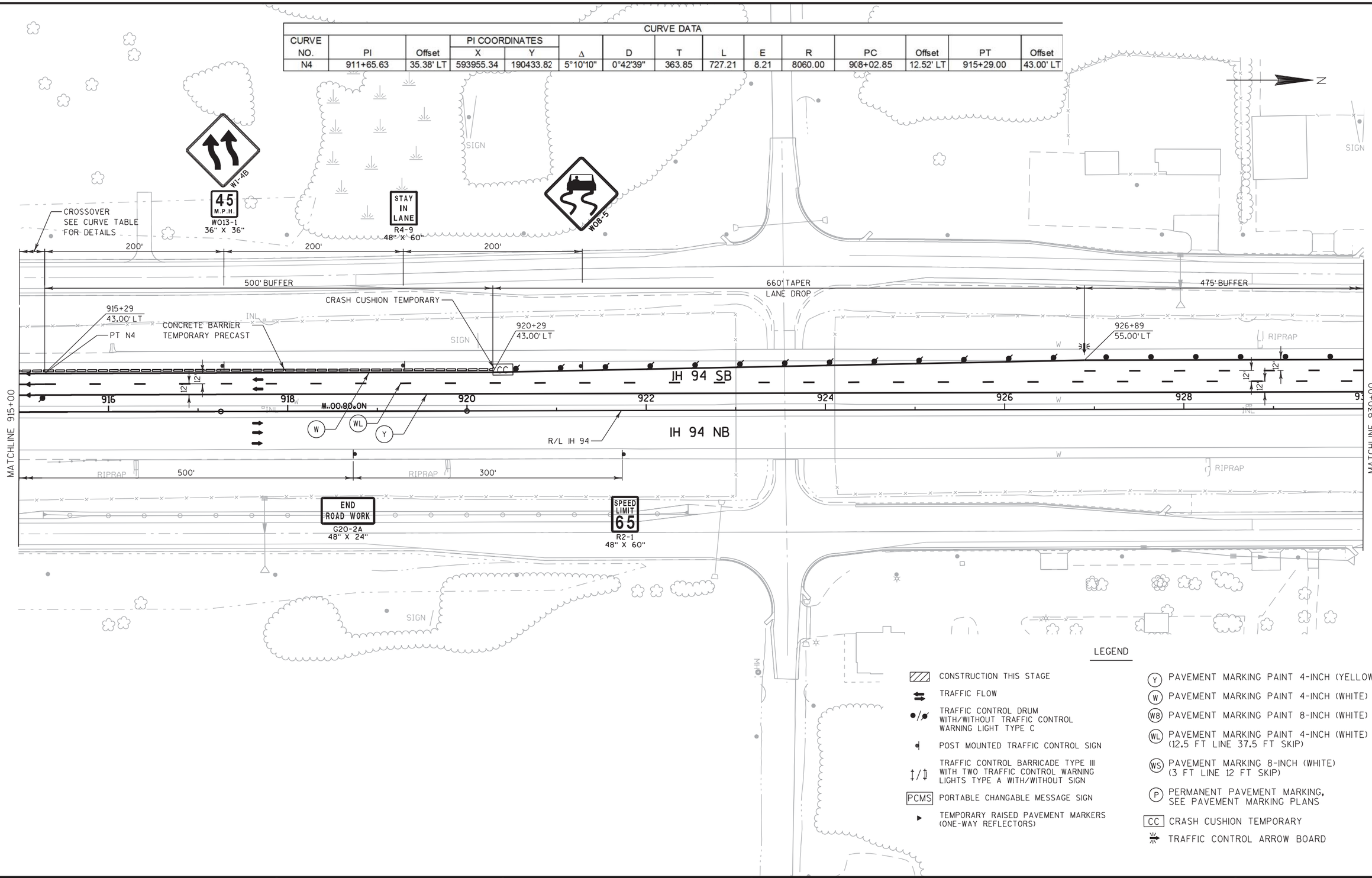
LEGEND

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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4A CONSTRUCTION	SHEET	E

2

CURVE DATA														
CURVE NO.	PI	Offset	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	Offset	PT	Offset
N4	911+65.63	35.38' LT	593955.34	190433.82	5°10'10"	0°42'39"	363.85	727.21	8.21	8060.00	908+02.85	12.52' LT	915+29.00	43.00' LT



LEGEND

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- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- CC CRASH CUSHION TEMPORARY
- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4A CONSTRUCTION	SHEET	E

2

A — FINES DOUBLE IN WORK ZONES (Give 'em a BRAKE SLOW DOWN)
W21-62
96" X 48"

$200 MINIMUM
W21-62P
96" X 12"

B2 — ROADWORK AHEAD EXPECT DELAYS
FIXED MESSAGE SIGN
SEE SIGN DETAILS FOR
LAYOUT INFORMATION

N

W21-62Q
48"X30"
WORK ZONE
SPEED LIMIT 55
R2-1
48" X 60"
FINES DOUBLE
W21-62R
48"X30"

W04-2R

RIGHT LANE CLOSED 1500 FT
W20-5

RIGHT LANE CLOSED 1/2 MILE
W20-5

SPEED LIMIT 55
W3-5
48" X 48"

ROAD WORK 1 MILE
W20-1

ROAD WORK 2 MILES
W20-1

SIGN

475' BUFFER | 525' | 575' | 525' | 500' | 2100' | 500' | 4000' | B2 | 500' | A | 500'

931+64
55.00' LT
4 DRUMS
@ 10' SPACING

SIGN
50'
(TYP)
RIPRAP
MH

12' 12' 12'

IH 94 SB

930 932 934 936 938 940 942 944

R/L IH 94

IH 94 NB

MATCHLINE 930+00

SIGN

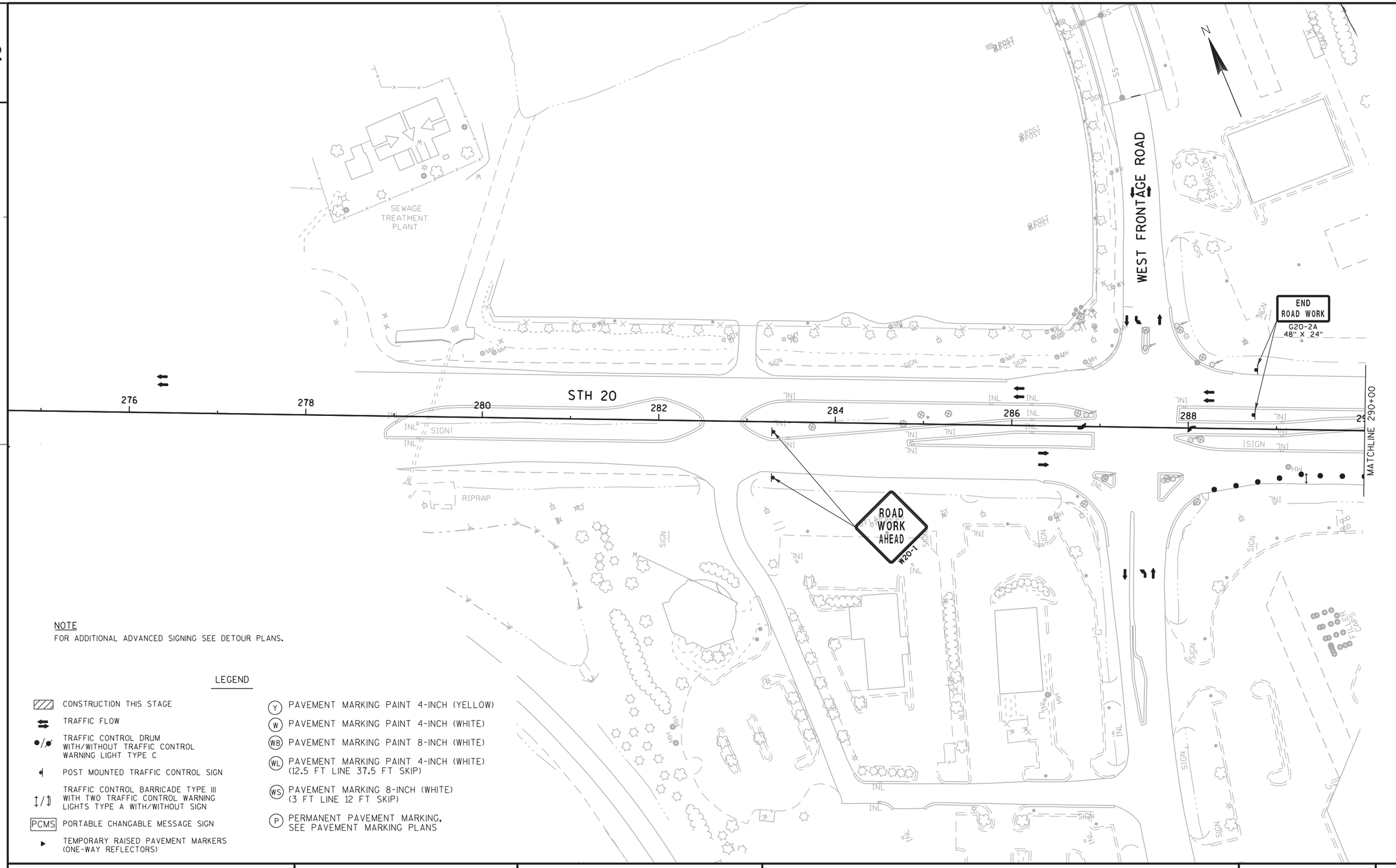
W

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- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4A CONSTRUCTION	SHEET	E

2



NOTE

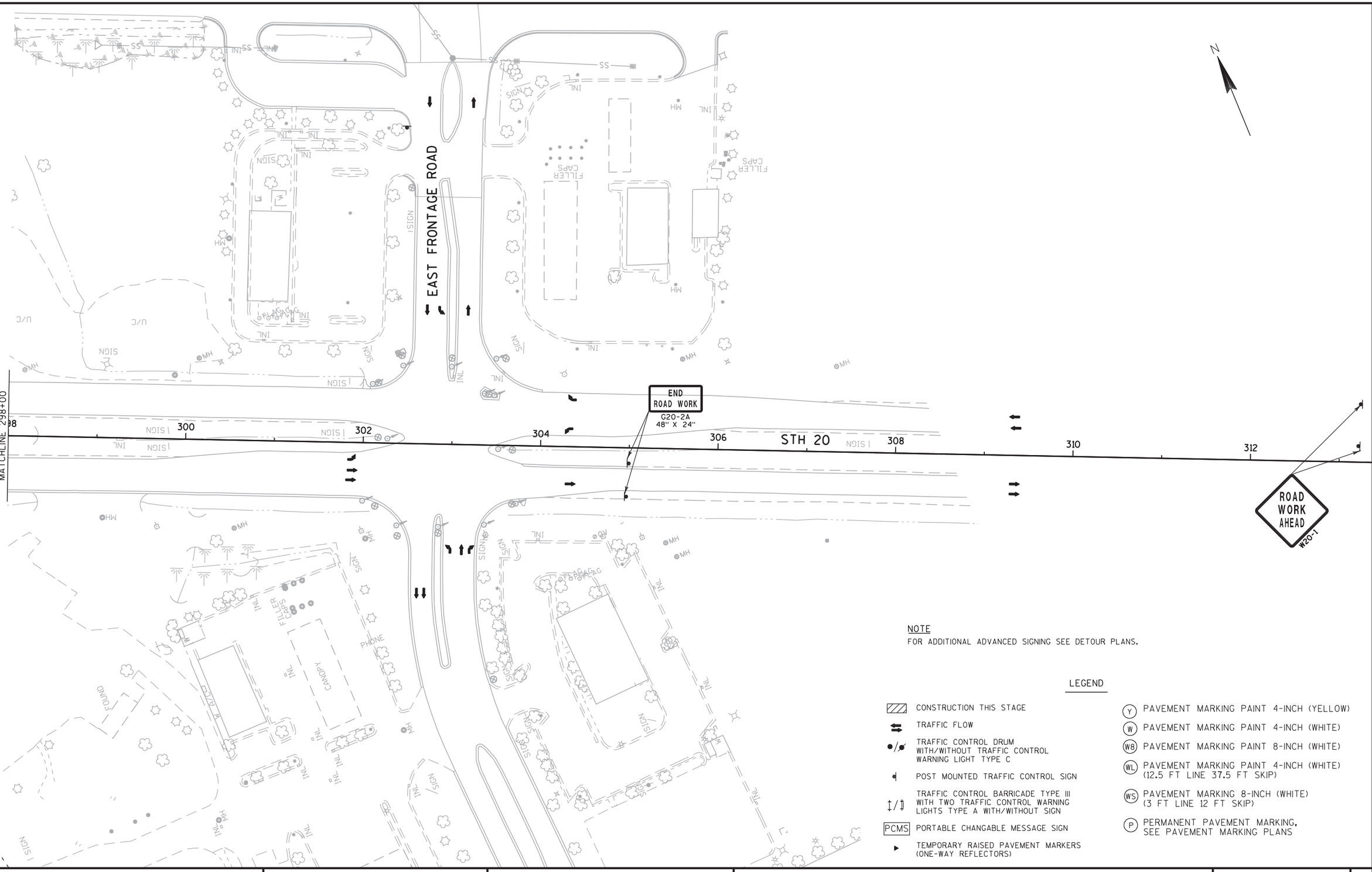
FOR ADDITIONAL ADVANCED SIGNING SEE DETOUR PLANS.

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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4A CONSTRUCTION	SHEET	E

2



NOTE

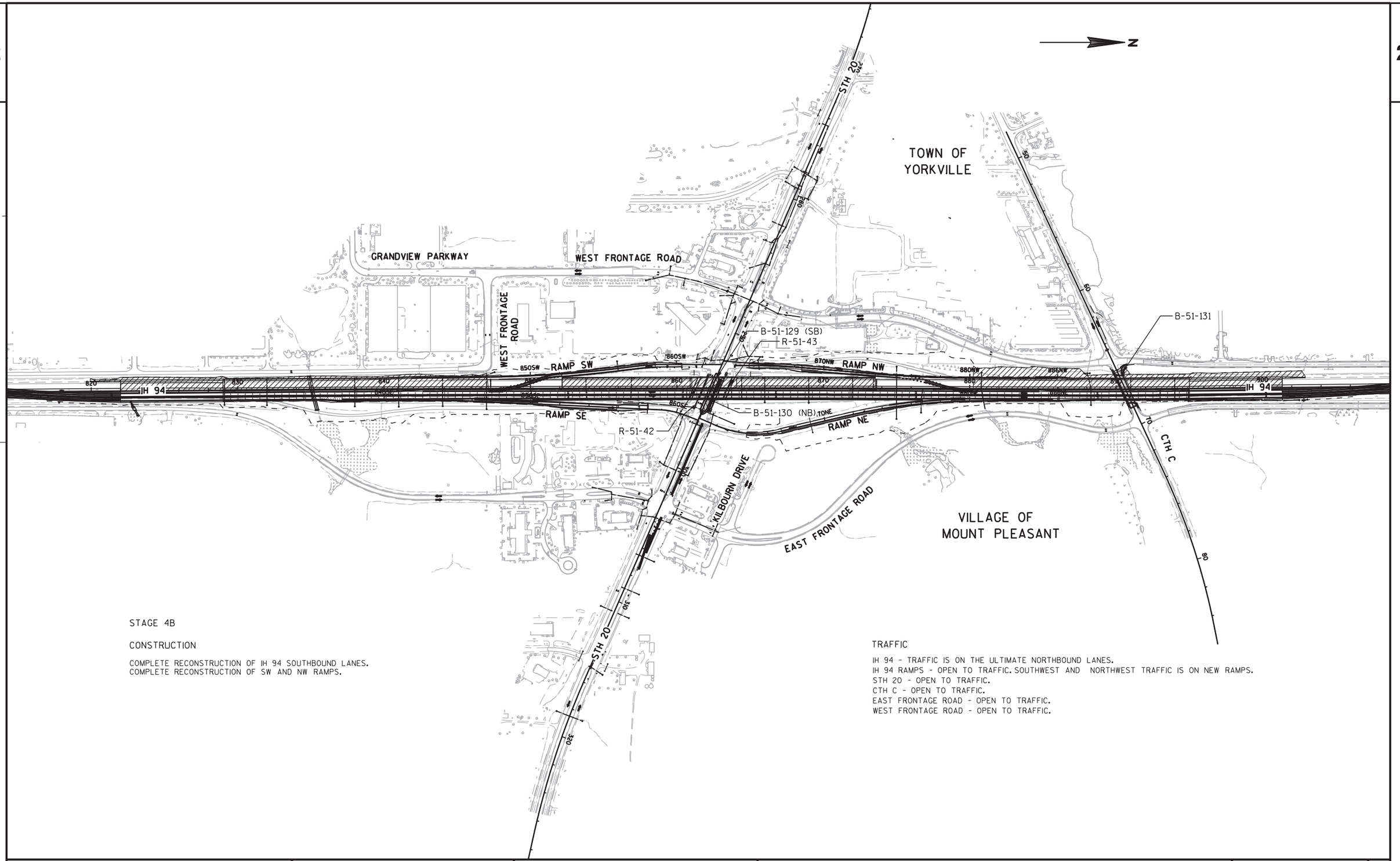
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4A CONSTRUCTION	SHEET	E

2



STAGE 4B

CONSTRUCTION

COMPLETE RECONSTRUCTION OF IH 94 SOUTHBOUND LANES.
COMPLETE RECONSTRUCTION OF SW AND NW RAMPS.

TRAFFIC

IH 94 - TRAFFIC IS ON THE ULTIMATE NORTHBOUND LANES.
IH 94 RAMPS - OPEN TO TRAFFIC. SOUTHWEST AND NORTHWEST TRAFFIC IS ON NEW RAMPS.
STH 20 - OPEN TO TRAFFIC.
CTH C - OPEN TO TRAFFIC.
EAST FRONTAGE ROAD - OPEN TO TRAFFIC.
WEST FRONTAGE ROAD - OPEN TO TRAFFIC.

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CONSTRUCTION STAGING OVERVIEW: STAGE 4B	SHEET	E

2

(A) FINES DOUBLE IN WORK ZONES — Give 'em a BRAKE SLOW DOWN
W21-62
96" X 48"

$200 MINIMUM
W21-62P
96" X 12"

(B1) ROADWORK AHEAD EXPECT DELAYS
FIXED MESSAGE SIGN
SEE SIGN DETAILS FOR LAYOUT INFORMATION

N

POOL
FOUND
SIGN
SEPTIC
SEPTIC
SIGN
MH
MH
SIGN
SIGN
SIGN
SIGN

ROAD WORK 2 MILES
W20-1

SPEED LIMIT 55
W3-5
48" X 48"

LEFT LANE CLOSED 1/2 MILE
W20-5

SPEED LIMIT 55
R2-1
48" X 60"
FINES DOUBLE
W21-62R
48"X30"

LEFT LANE CLOSED 1500 FT
W20-5

W04-2L

4 DRUMS
@ 10' SPACING

IH 94 SB

780 W 782 INL 784 INL 786 INL 788 INL 790 W 792 INL 794

MATCHLINE 795+00

IH 94 NB

SIGN
SIGN
INL

500' (A) 500' (B1) 4000' 500' 2100' 500' 525' 575' 525' 475' BUFFER
25'

MH

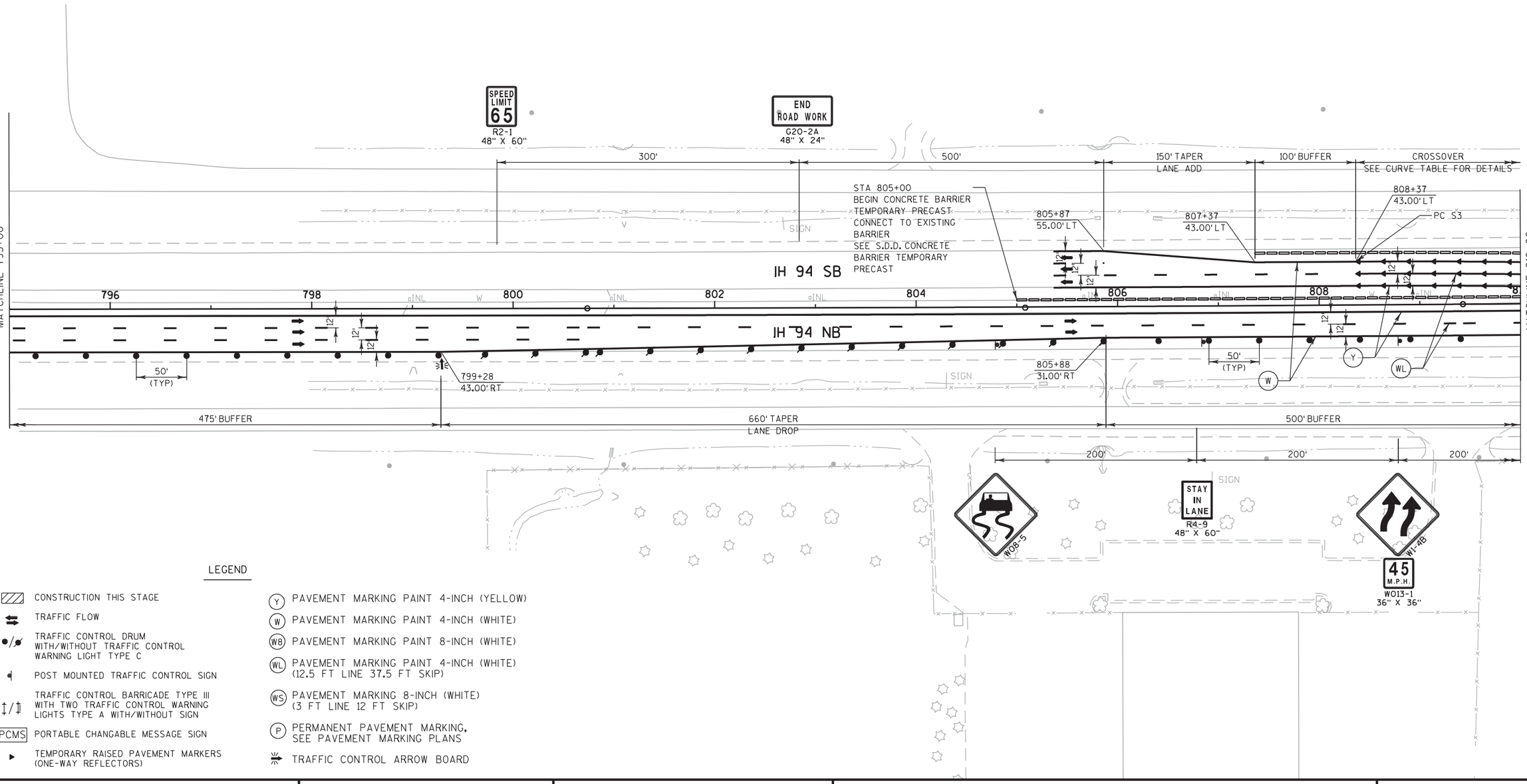
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- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4B CONSTRUCTION	SHEET	E

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CURVE DATA														
CURVE NO.	PI	Offset	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	Offset	PT	Offset
S3			593999.00	180445.21	4°49'47"	0°42'39"	339.92	679.43	7.16	8060.00	807+36.54	43.00' LT	815+15.16	13.90' LT

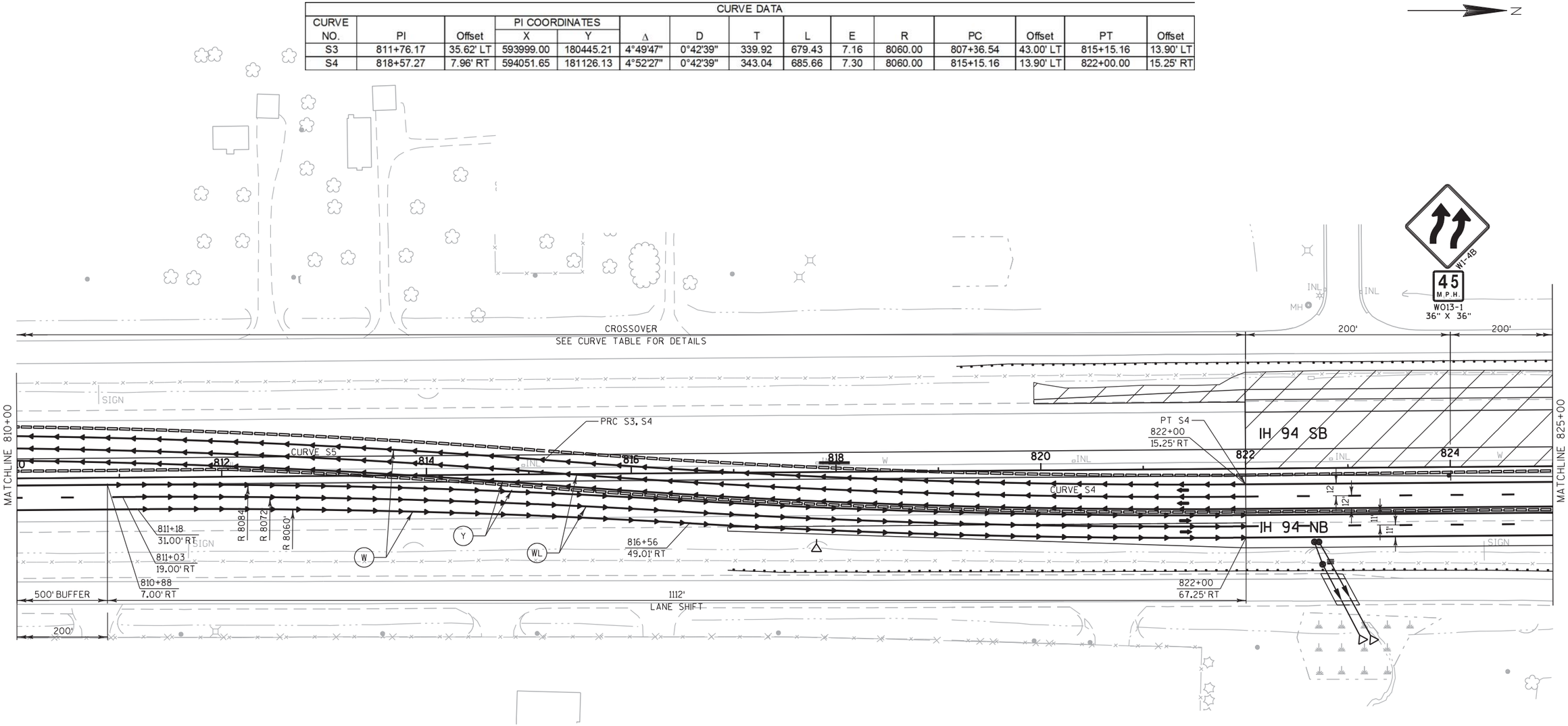


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- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4B CONSTRUCTION	SHEET	E

CURVE DATA														
CURVE NO.	PI	Offset	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	Offset	PT	Offset
S3	811+76.17	35.62' LT	593999.00	180445.21	4°49'47"	0°42'39"	339.92	679.43	7.16	8060.00	807+36.54	43.00' LT	815+15.16	13.90' LT
S4	818+57.27	7.96' RT	594051.65	181126.13	4°52'27"	0°42'39"	343.04	685.66	7.30	8060.00	815+15.16	13.90' LT	822+00.00	15.25' RT



LEGEND

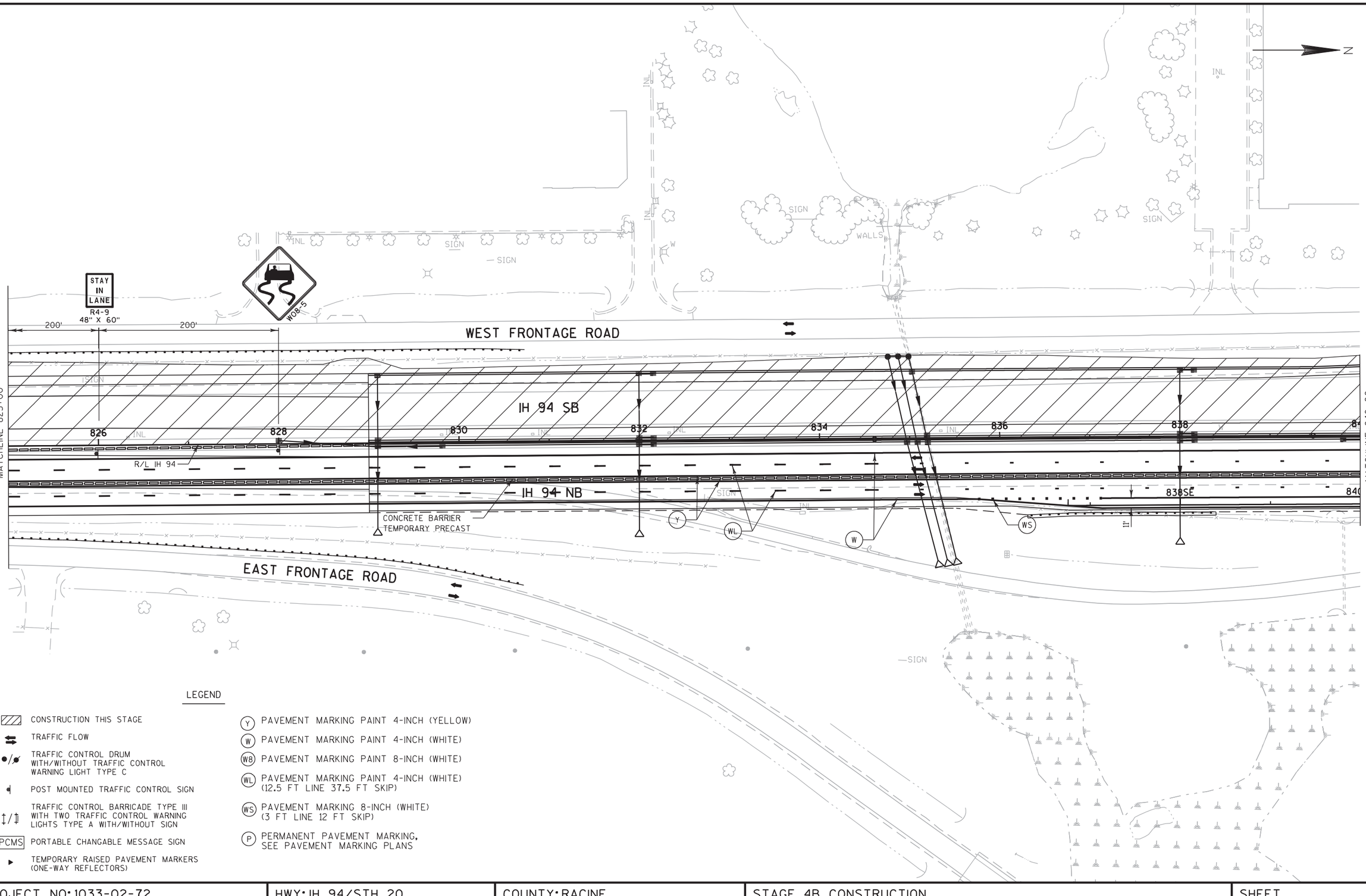
- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- PCMS PORTABLE CHANGABLE MESSAGE SIGN
- TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTORS)

- (Y) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (W) PAVEMENT MARKING PAINT 4-INCH (WHITE)
- (W8) PAVEMENT MARKING PAINT 8-INCH (WHITE)
- (WL) PAVEMENT MARKING PAINT 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4B CONSTRUCTION	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\026704_s4b.dgn PLOT DATE : 31-JUL-2013 23:16 PLOT BY : MSCD1S PLOT NAME : 026704_s4b PLOT SCALE : 100:1

2



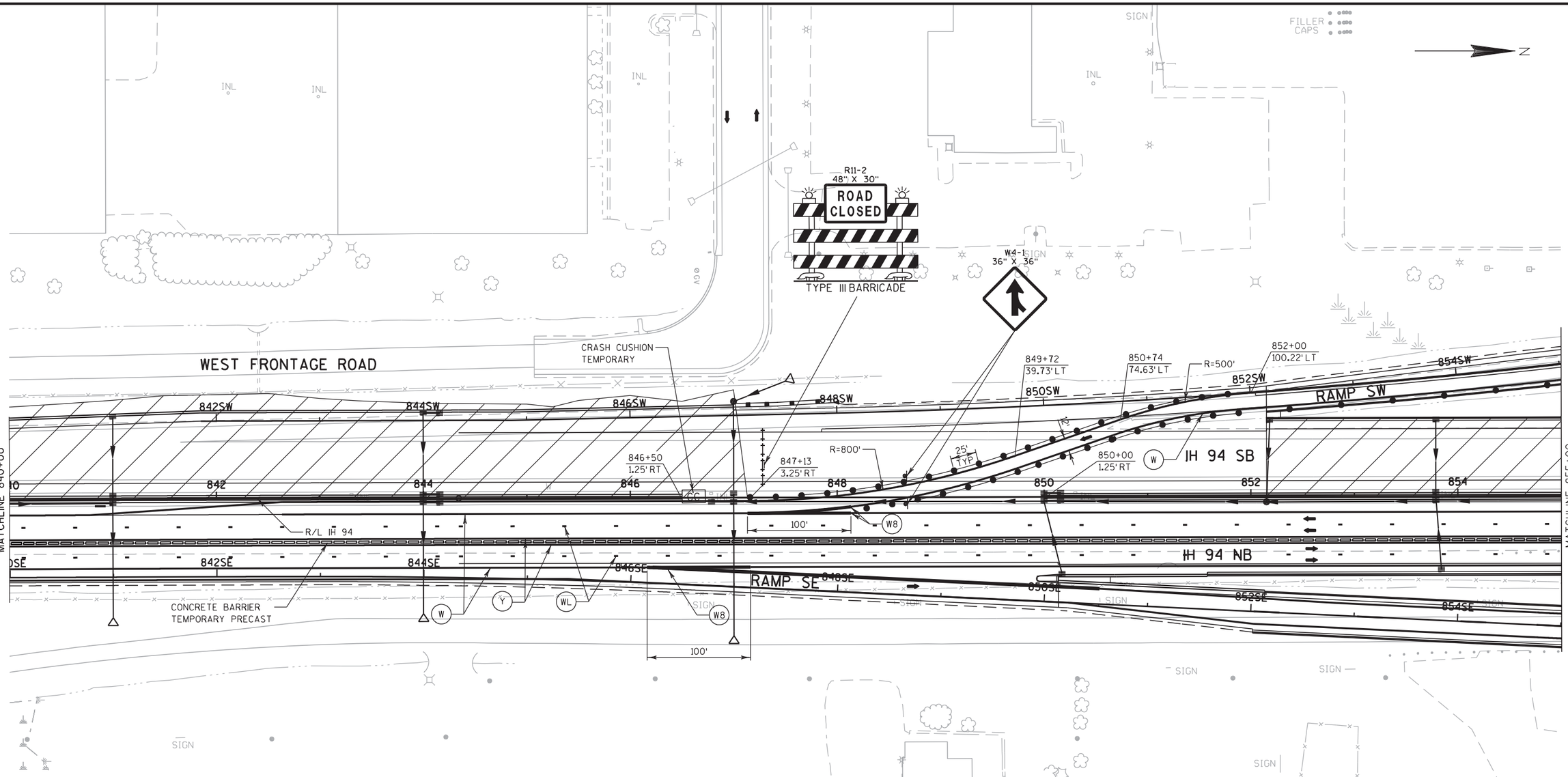
LEGEND

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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4B CONSTRUCTION	SHEET	E

2



LEGEND

- CONSTRUCTION THIS STAGE
- TRAFFIC FLOW
- TRAFFIC CONTROL DRUM WITH/WITHOUT TRAFFIC CONTROL WARNING LIGHT TYPE C
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- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
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- (WL) PAVEMENT MARKING PAINT 4-INCH (WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- CC CRASH CUSHION TEMPORARY

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4B CONSTRUCTION	SHEET	E

2

MATCHLINE 291+00

N

RAMP SW

858SW

860SW

862SW

RAMP NW

864NW

866NW

868NW

STH 20

292

IH 94 SB

IH 94-NB

MATCHLINE 855+00

MATCHLINE 870+00

856

858

860

862

864

866

868

R/L IH 94

CONCRETE BARRIER
TEMPORARY PRECAST

RAMP SE

858SE

860SE

862SE

294

296

ROAD
WORK
AHEAD

W20-1

862NE

864NE

866NE

RAMP NE

868NE

R11-2
48" X 30"
LANE
CLOSED

TYPE III BARRICADE

298

MATCHLINE 300+00

SIGN

INL

MH

FOUND

U/C

CC

WT

YT

W

Y

WL

LEGEND

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- TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTORS)

- (YT) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (WT) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (Y) PAVEMENT MARKING PAINT 4-INCH (YELLOW)
- (W) PAVEMENT MARKING PAINT 4-INCH (WHITE)
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4B CONSTRUCTION	SHEET	E

2

WEST FRONTAGE ROAD

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

CRASH CUSHION TEMPORARY

W01-6
48" X 24"
TYPE III BARRICADE

E5-1
60" X 48"
EXIT

RAMP NW

MATCHLINE 870+00

872NW 874NW 875+38 86.68' LT 876NW R=800' 876+91 59.43' LT 878NW 880NW 882NW 884NW

872 874 876 877+50 3.25' RT CC 878 880 882 884

25' TYP

R=800'

IH 94 SB

881+30 3.25' RT

R/L IH 94

RIPRAP

CONCRETE BARRIER TEMPORARY PRECAST

IH 94 NB

880NE 882NE 884NE

878NE 876NE 874NE 872NE

W8 100' 600'

11'

RAMP NE

EAST FRONTAGE ROAD

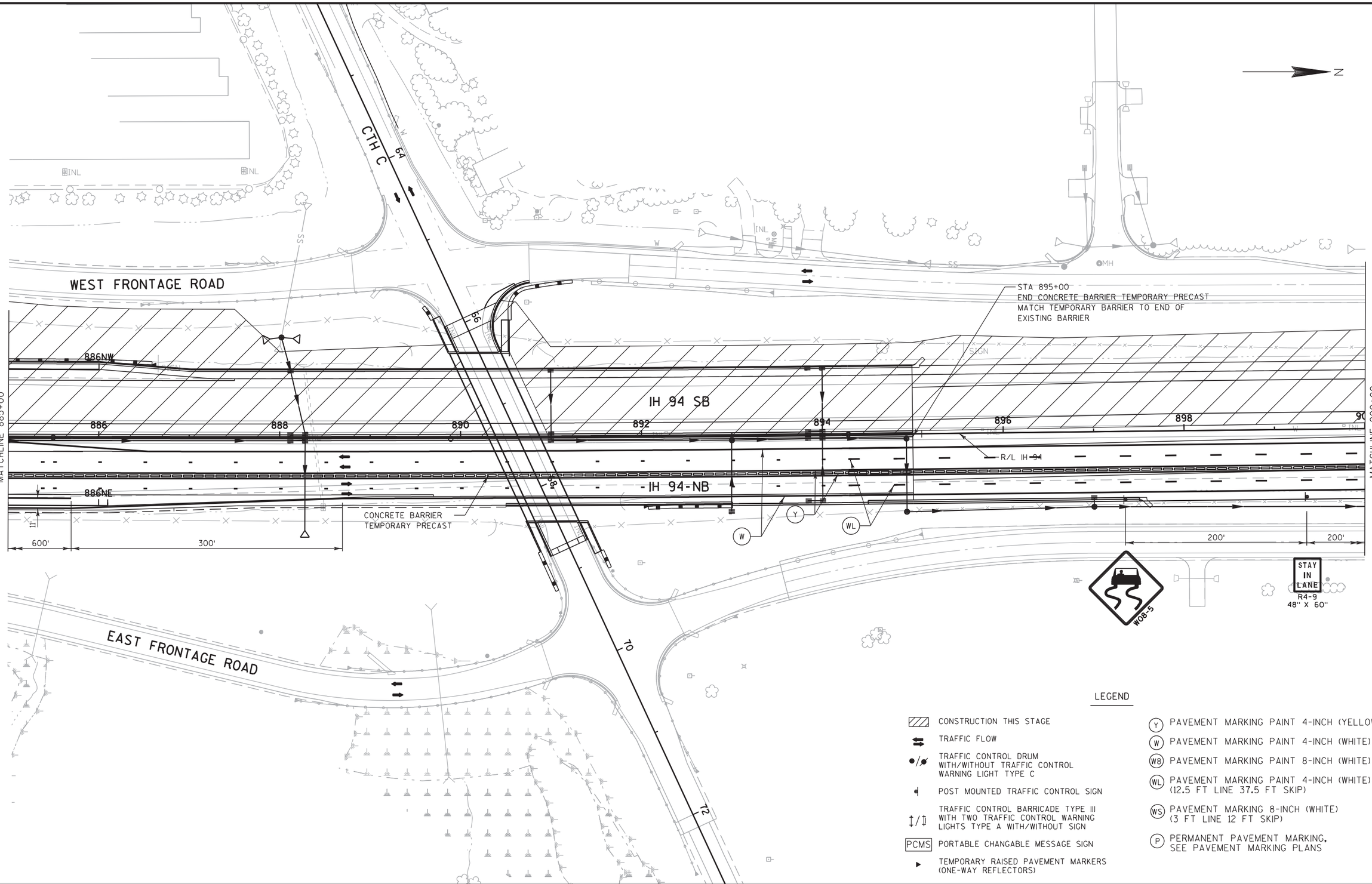
MATCHLINE 885+00

LEGEND

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- CC CRASH CUSHION TEMPORARY

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4B CONSTRUCTION	SHEET	E

2



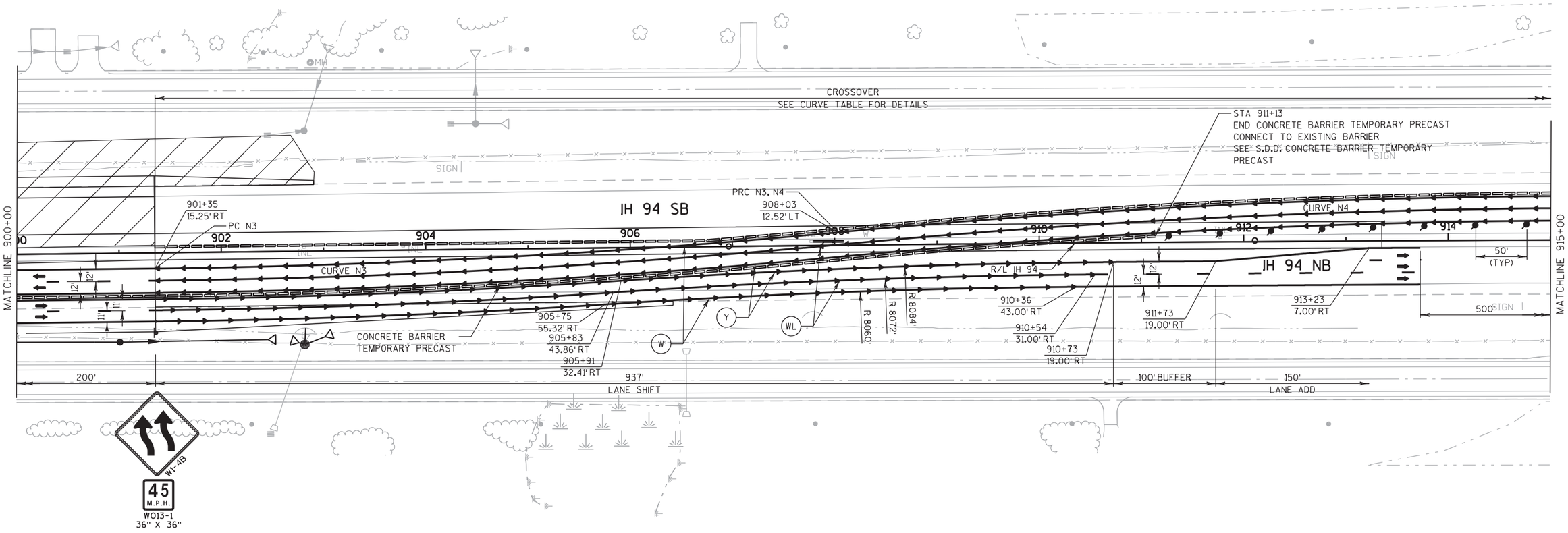
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4B CONSTRUCTION	SHEET	E

CURVE DATA

CURVE NO.	PI	Offset	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	Offset	PT	Offset
N3	904+69.22	8.32' RT	594021.07	189738.57	4°45'11"	0°42'39"	334.51	668.64	6.94	8060.00	901+35.00	15.25' RT	908+02.85	12.52' LT
N4	911+65.63	35.38' LT	593955.34	190433.82	5°10'10"	0°42'39"	363.85	727.21	8.21	8060.00	908+02.85	12.52' LT	915+29.00	43.00' LT



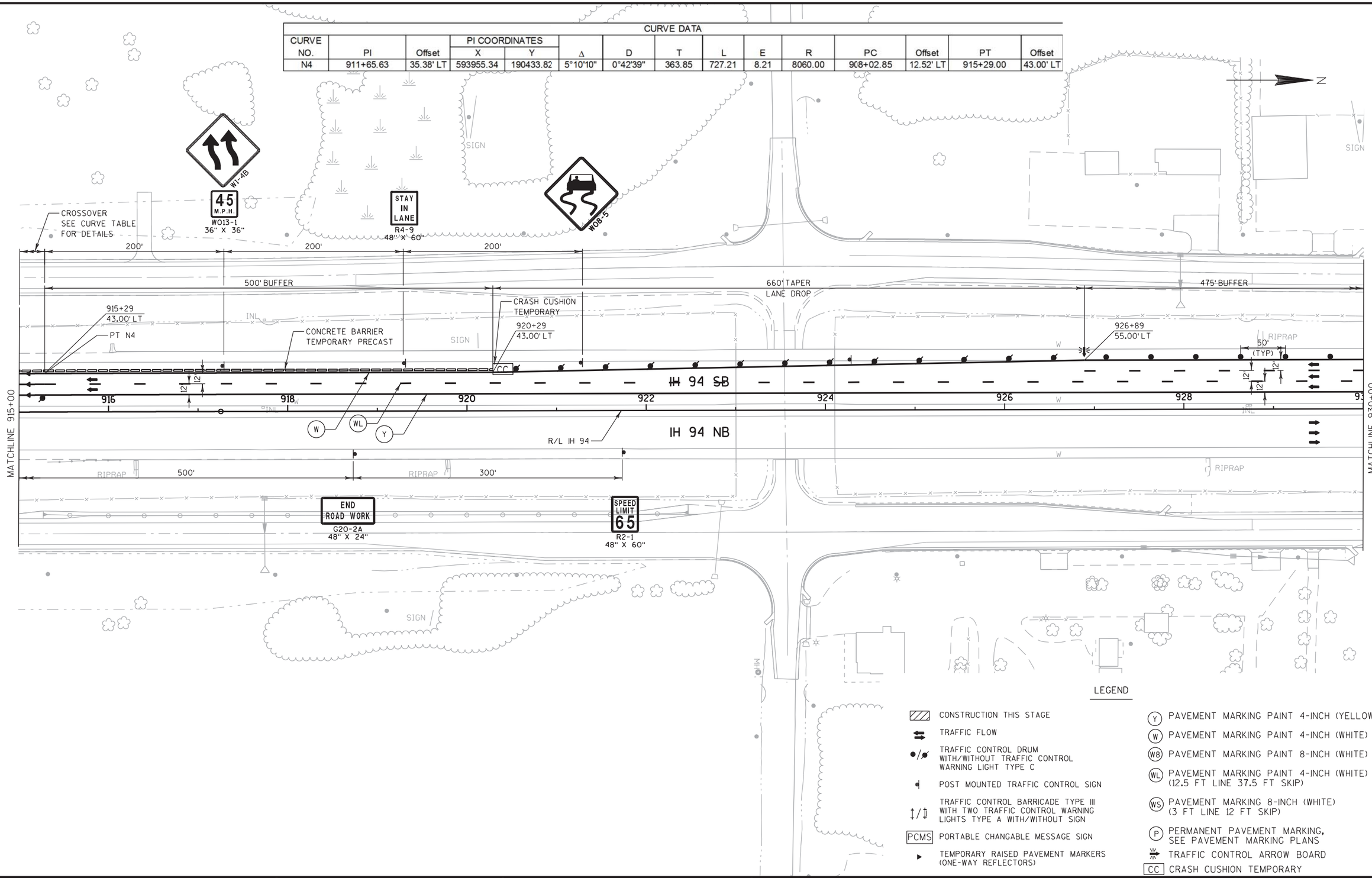
LEGEND

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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4B CONSTRUCTION	SHEET	E

2

CURVE DATA														
CURVE NO.	PI	Offset	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	Offset	PT	Offset
N4	911+65.63	35.38' LT	593955.34	190433.82	5°10'10"	0°42'39"	363.85	727.21	8.21	8060.00	908+02.85	12.52' LT	915+29.00	43.00' LT



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4B CONSTRUCTION	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\026711_s4b.dgn PLOT DATE : 31-JUL-2013 23:19 PLOT BY : MSCD1S PLOT NAME : 026711_s4b PLOT SCALE : 100:1

2

A — FINES DOUBLE IN WORK ZONES (Give 'em a BRAKE SLOW DOWN)
W21-62
96" X 48"

$200 MINIMUM
W21-62P
96" X 12"

B2 — ROADWORK AHEAD EXPECT DELAYS
FIXED MESSAGE SIGN
SEE SIGN DETAILS FOR
LAYOUT INFORMATION

N

W04-2R

RIGHT LANE CLOSED 1500 FT
W20-5

W21-62Q
48"X30"
WORK ZONE
SPEED LIMIT 55
R2-1
48" X 60"
FINES DOUBLE
W21-62R
48"X30"

RIGHT LANE CLOSED 1/2 MILE
W20-5

SPEED LIMIT 55
W3-5
48" X 48"

ROAD WORK 1 MILE
W20-1

ROAD WORK 2 MILES
W20-1

SIGN

475' BUFFER | 525' | 575' | 525' | 500' | 2100' | 500' | 4000' | B2 | 500' | A | 500'

25' 931+64
55.00' LT

SIGN
50'
(TYP)

12" 12" 12"

RIPRAP

MH

IH 94 SB

930 932 934 936 938 940 942 944

4 DRUMS
@ 10' SPACING

R/L IH 94

IH 94 NB

MATCHLINE 930+00

SIGN

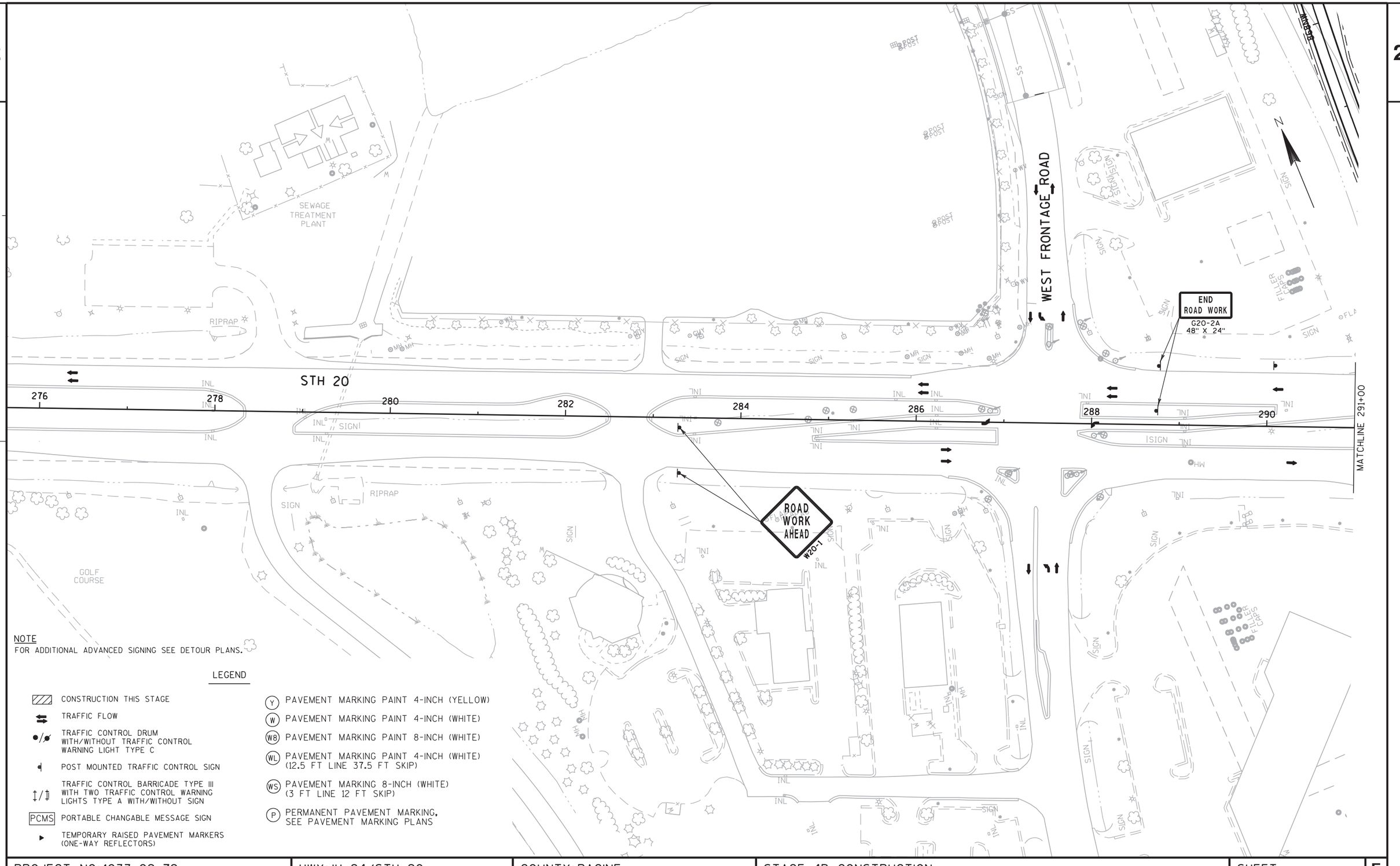
W

LEGEND

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- TRAFFIC FLOW
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- POST MOUNTED TRAFFIC CONTROL SIGN
- TRAFFIC CONTROL BARRICADE TYPE III WITH TWO TRAFFIC CONTROL WARNING LIGHTS TYPE A WITH/WITHOUT SIGN
- PCMS — PORTABLE CHANGABLE MESSAGE SIGN
- TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTORS)
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- (WS) PAVEMENT MARKING 8-INCH (WHITE) (3 FT LINE 12 FT SKIP)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLANS
- TRAFFIC CONTROL ARROW BOARD

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4B CONSTRUCTION	SHEET	E

2



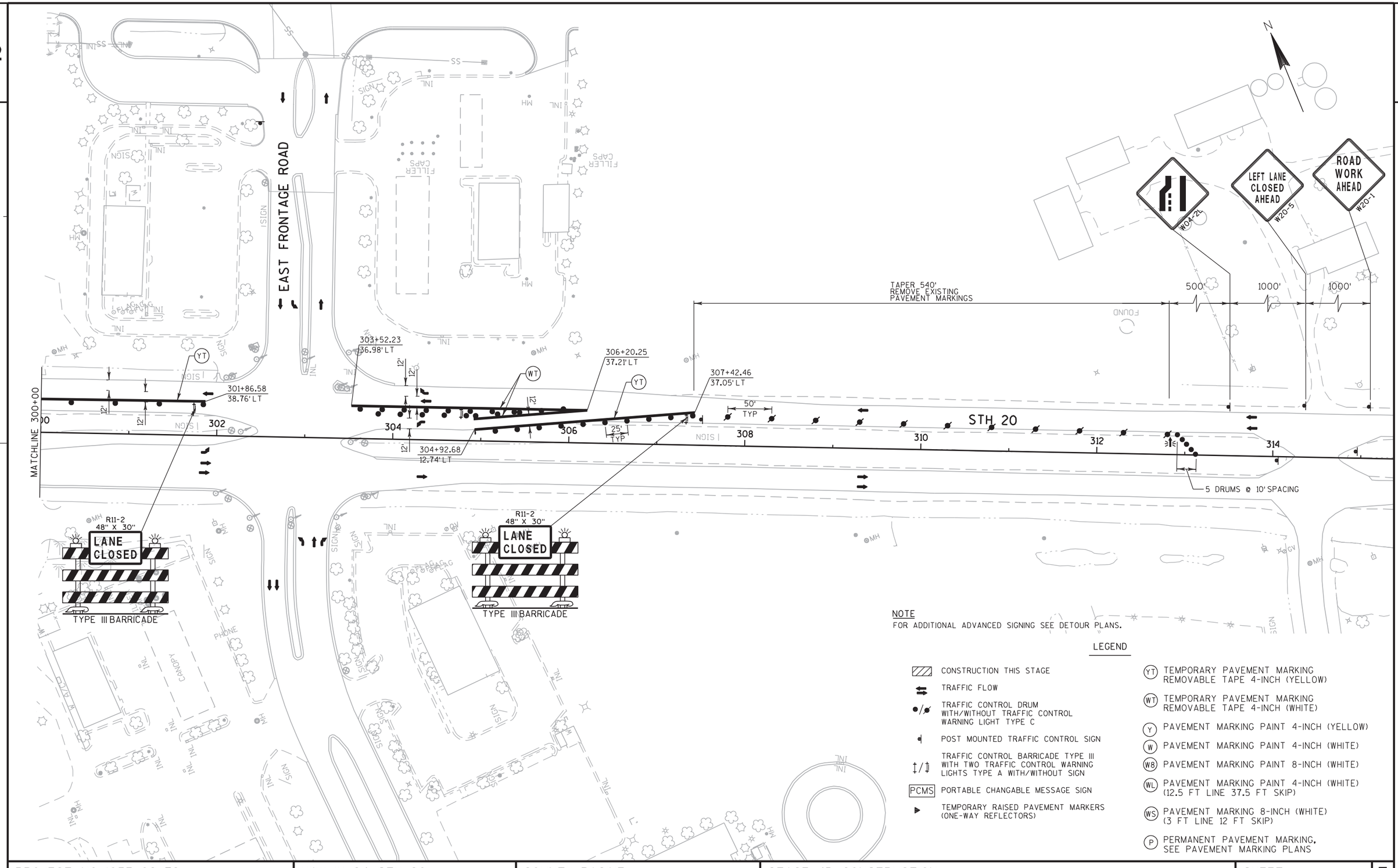
NOTE
FOR ADDITIONAL ADVANCED SIGNING SEE DETOUR PLANS.

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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4B CONSTRUCTION	SHEET	E

2



NOTE
FOR ADDITIONAL ADVANCED SIGNING SEE DETOUR PLANS.

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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	STAGE 4B CONSTRUCTION	SHEET	E

2

N

NOTES

1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE "I" SIGN.
2. ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.
3. SEE FIXED MESSAGE SIGNS LAYOUT SHEETS FOR MORE INFORMATION.
4. COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO WORK ZONE TRAFFIC CONTROL SIGNING.
5. SIGNS TO BE PLACED 10 DAYS PRIOR TO CONSTRUCTION.

Gateway Tech College Racine Campus EXIT 333
(15) RAMP CLOSED
PLACE FIXED MESSAGE SIGN

Sheriffs Substation
CRASH INVESTIGATION SITE
EXIT 333
(13) RAMP CLOSED
PLACE FIXED MESSAGE SIGN

Amtrak Station EXIT 333
(16) RAMP CLOSED
PLACE FIXED MESSAGE SIGN

PLACE FIXED MESSAGE SIGN
SIS LODGING
(21) RAMP CLOSED

Waterford EXIT 333
(12) RAMP CLOSED
PLACE FIXED MESSAGE SIGN

Park & Ride
Tourist Info EXIT 333
(17) RAMP CLOSED
PLACE FIXED MESSAGE SIGN

1ST STREET
60TH ROAD
56TH ROAD
58TH ROAD
STH 11
SPRING STREET
50TH ROAD
IH 94
E. FRONTAGE ROAD
CTH KR
COUNTY LINE ROAD
BRAUN ROAD
CTH C
KRAUT ROAD
STH 20

11 / 20 / K — 1/2, 2 1/4, 6
(18) RAMP CLOSED
COVER WITH FIXED MESSAGE SIGN

1A, 500', 200', 2B, 2C, 2D, 2E

SIS GAS
RAMP CLOSED (22)
PLACE FIXED MESSAGE SIGN

SIS FOOD
RAMP CLOSED (20)
PLACE FIXED MESSAGE SIGN

20 / K / G — 1/2, 4 1/4, 6 1/2
(14) RAMP CLOSED
COVER WITH FIXED MESSAGE SIGN

EXIT 333
20
RACINE
MT PLEASANT

COVER WITH FIXED MESSAGE SIGN
(10)
BLANK ORANGE

(19)
RAMP TO 20 CLOSED AHEAD USE 11 EXIT
PLACE FIXED MESSAGE SIGN 1000' SOUTH OF BRAUN ROAD

RAMP CLOSED
BEGINS XXX XX
(11) FIXED MESSAGE SIGN TO BE PLACED 10 DAYS PRIOR TO CONSTRUCTION
REMOVE WHEN CONSTRUCTION BEGINS

EXIT 335
11
Racine
Mt Pleasant

(1F) TO 20 / M06-2
M04-5 36" X 18"
M1-6 36" X 36"
M06-2 30" X 30"

EXIT 333
20
Racine
Mt Pleasant
1 3/4 MILES
(18) RAMP CLOSED
COVER WITH FIXED MESSAGE SIGN

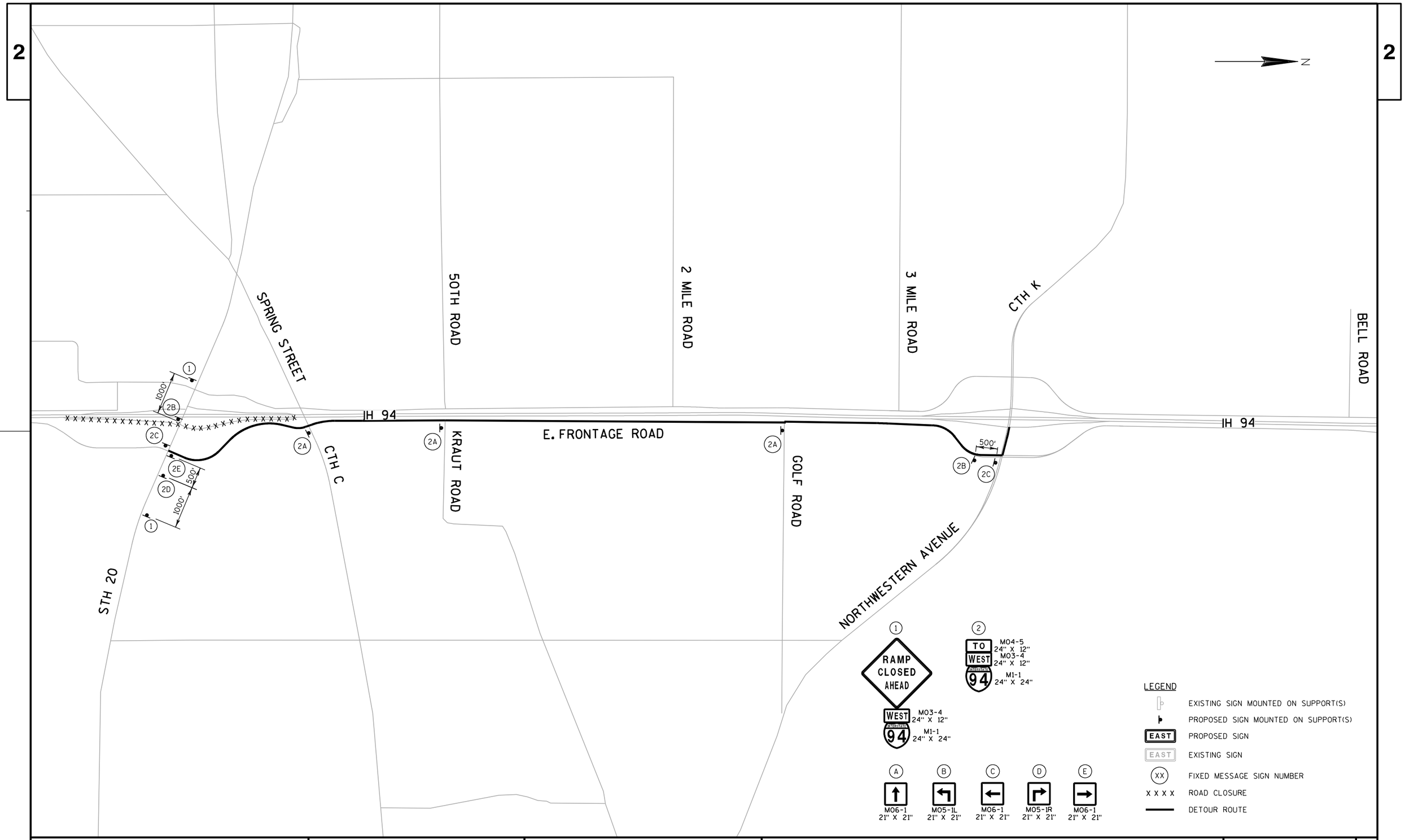
(1) TO 20
M04-5 36" X 18"
M1-6 36" X 36"

(2) TO 20
M04-5 24" X 12"
M1-6 24" X 24"

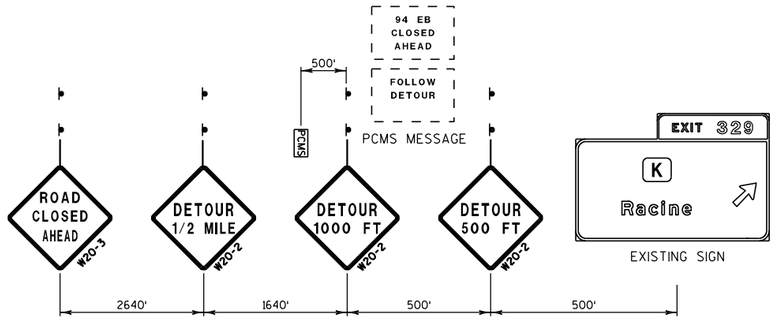
(A)	(B)	(C)	(D)	(E)	(F)
M05-2R 30" X 30"	M05-1R 21" X 21"	M06-1 21" X 21"	M06-1 21" X 21"	M06-1 21" X 21"	M06-2 30" X 30"

LEGEND
- EXISTING SIGN MOUNTED ON SUPPORT(S)
- PROPOSED SIGN MOUNTED ON SUPPORT(S)
- EAST — PROPOSED SIGN
- EAST — EXISTING SIGN
- (XX) — FIXED MESSAGE SIGN NUMBER
- X X X X — ROAD CLOSURE
- DETOUR ROUTE

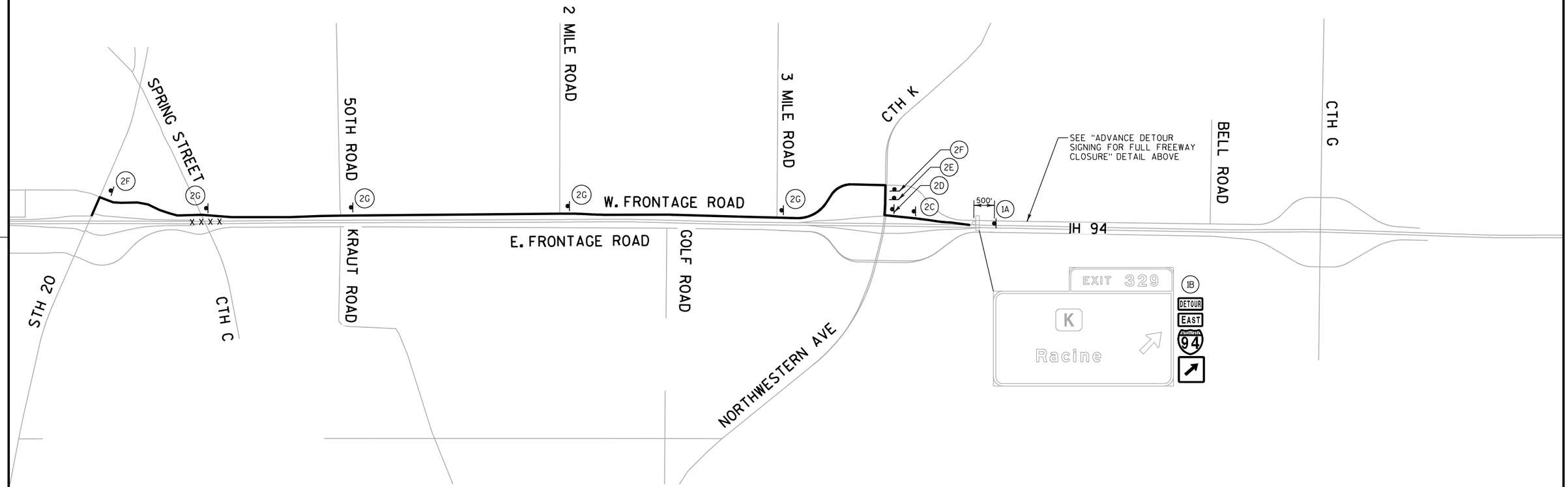
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	DETOUR PLAN - STAGE 2A NORTHBOUND EXIT RAMP CLOSURE	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	DETOUR PLAN - STAGE 2A NORTHBOUND ENTRANCE RAMP CLOSURE	SHEET	E

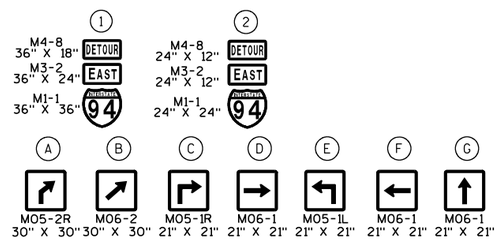


ADVANCE DETOUR SIGNING FOR FULL FREEWAY CLOSURE



NOTES

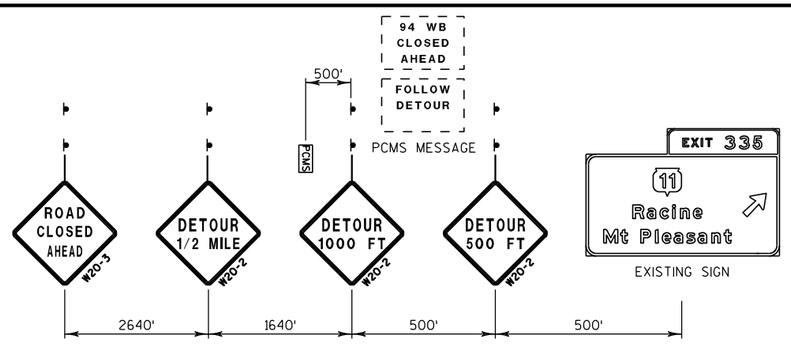
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4. COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO WORK ZONE TRAFFIC CONTROL SIGNING.
5. SIGNS TO BE PLACED 10 DAYS PRIOR TO CONSTRUCTION.



LEGEND

- EXISTING SIGN MOUNTED ON SUPPORT(S)
- PROPOSED SIGN MOUNTED ON SUPPORT(S)
- EAST — PROPOSED SIGN
- EAST — EXISTING SIGN
- XX — FIXED MESSAGE SIGN NUMBER
- X X X X — ROAD CLOSURE
- DETOUR ROUTE

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	DETOUR PLAN - STAGE 2A IH 94 EB (FULL FREEWAY CLOSURE)	SHEET	E



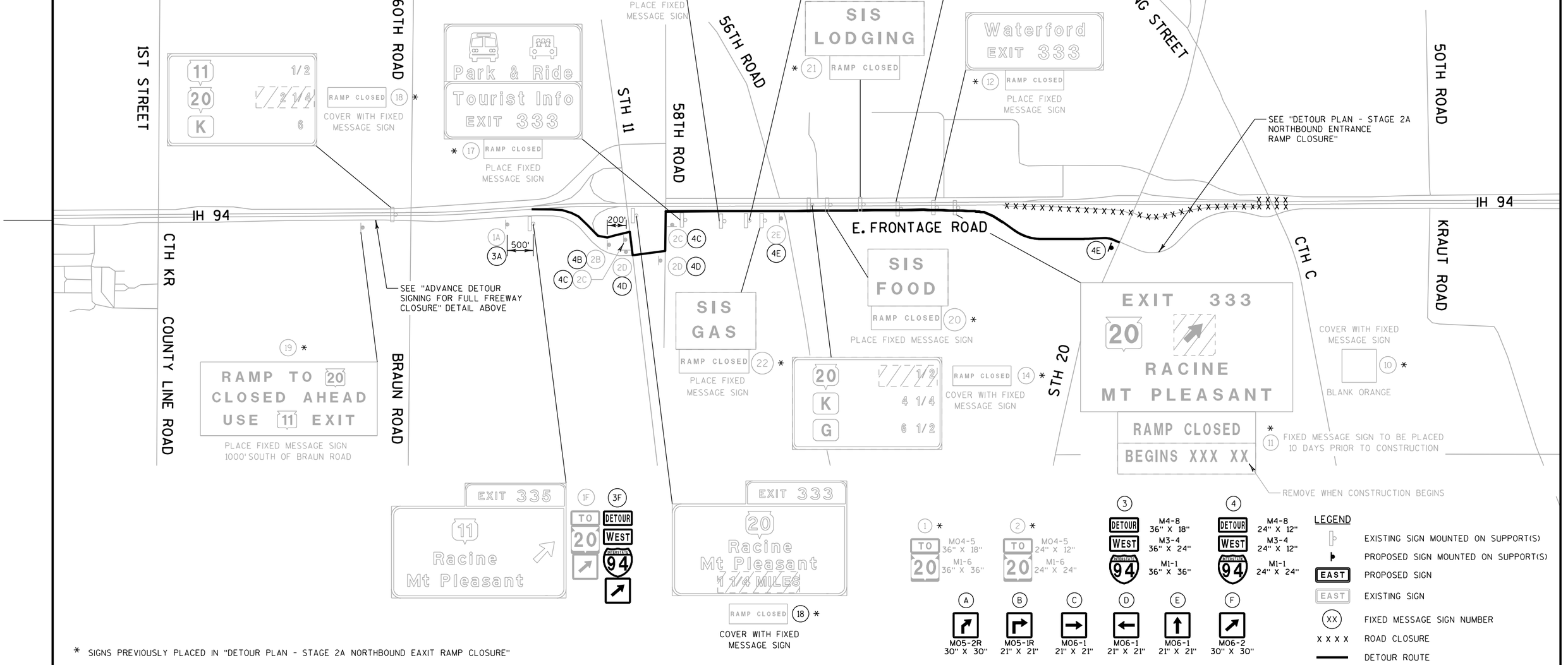
EXISTING SIGN

ADVANCE DETOUR SIGNING FOR FULL FREEWAY CLOSURE

N

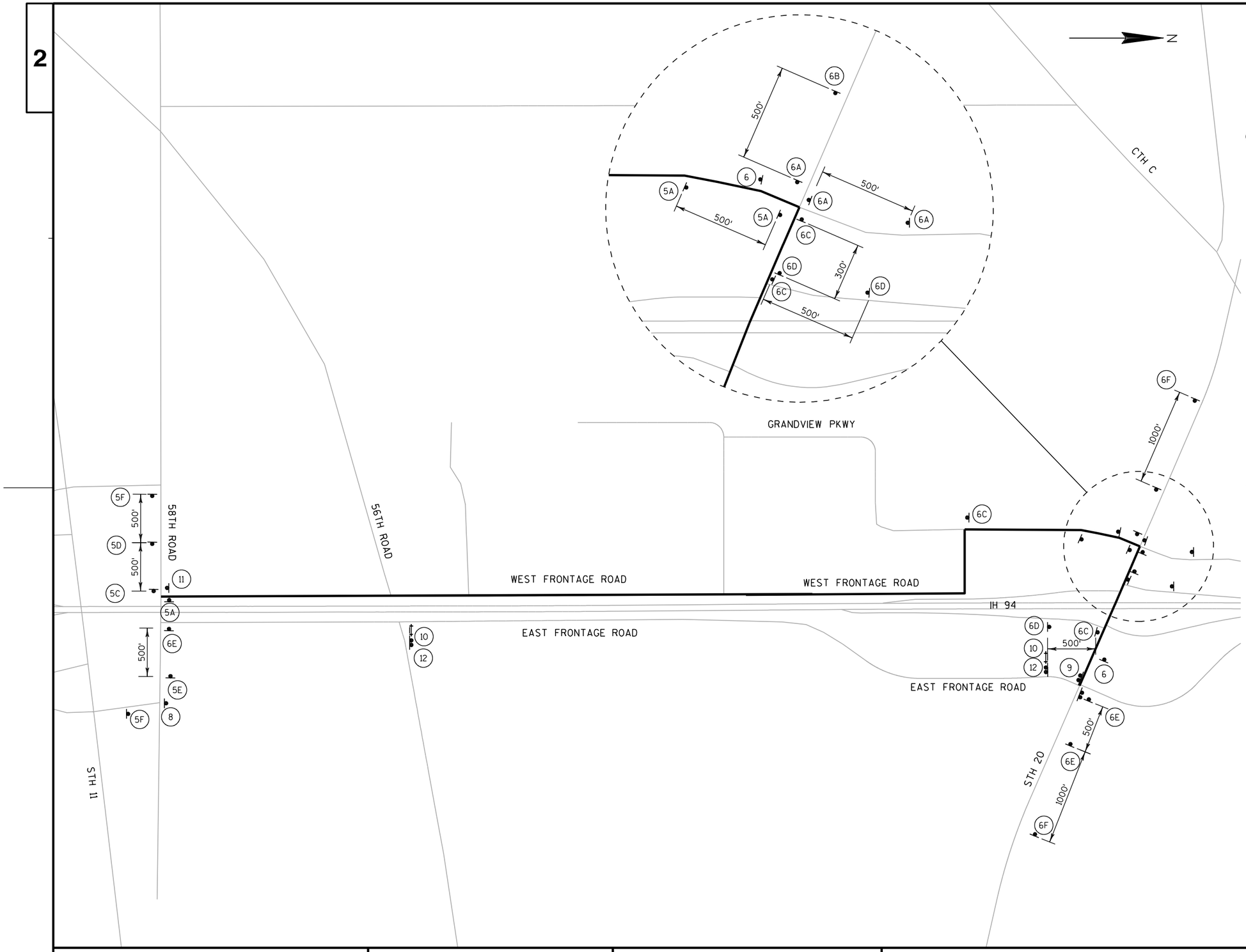
NOTES

1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE "I" SIGN.
2. ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.
3. SEE FIXED MESSAGE SIGNS LAYOUT SHEETS FOR MORE INFORMATION.
4. COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO WORK ZONE TRAFFIC CONTROL SIGNING.
5. SIGNS TO BE PLACED 10 DAYS PRIOR TO CONSTRUCTION.



* SIGNS PREVIOUSLY PLACED IN "DETOUR PLAN - STAGE 2A NORTHBOUND EAXIT RAMP CLOSURE"

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	DETOUR PLAN - STAGE 2A IH 94 WB (FULL FREEWAY CLOSURE)	SHEET	E



LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- SIGN NUMBER
- DETOUR ROUTE
- TRAFFIC CONTROL BARRICADE TYPE III WITH ATTACHED SIGN
- XXX — FIXED MESSAGE SIGN NUMBER (SEE TRAFFIC CONTROL DETAIL: FIXED MESSAGE SIGN)

NOTES

EAST FRONTAGE ROAD SOUTH OF STH 20 IS CLOSED FOR THE DURATION OF DETOUR

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS. UNLESS OTHERWISE PROVIDED IN THE PLAN.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN EAST FRONTAGE ROAD IS OPEN TO TRAFFIC AND SIGN DETOUR IS NOT IN USE.

5	DETOUR / NORTH / EAST FRONTAGE ROAD	M4-8 24" X 12", M3-1 24" X 12", M1-95A 24" X 30"	
6	DETOUR / SOUTH / EAST FRONTAGE ROAD	M4-8 24" X 12", M3-3 24" X 12", M1-95A 24" X 30"	
8	DETOUR	M4-9L 30" X 24"	
9	DETOUR	M4-9R 30" X 24"	
10	ROAD CLOSED XX MILES AHEAD LOCAL TRAFFIC ONLY	R11-3 60" X 30"	
11	END DETOUR / EAST FRONTAGE ROAD	M4-8A 24" X 18", M1-95A 24" X 30"	
12	ACCESS TO LOCAL BUSINESSES	R10-71 66" X 36"	
A		M06-1 21" X 21"	
B		M05-1R 21" X 21"	
C		M06-1 21" X 21"	
D		M05-1L 21" X 21"	
E		M06-1 21" X 21"	
F	DETOUR AHEAD	W20-2	

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	DETOUR PLAN - STAGE 2B EAST FRONTAGE ROAD CLOSURE	SHEET E

2

N

Park & Ride
EXIT 333

38 RAMP CLOSED
PLACE FIXED MESSAGE SIGN

Sheriffs Substation

CRASH INVESTIGATION SITE
EXIT 333

37 RAMP CLOSED
PLACE FIXED MESSAGE SIGN

EXIT 333
20
Racine
Mt Pleasant
1 1/2 MILES

33 RAMP CLOSED
COVER WITH FIXED MESSAGE SIGN

K 1/2
20 4 1/4
11 6 3/4

31 RAMP CLOSED
COVER WITH FIXED MESSAGE SIGN

32
RAMP TO 20
CLOSED AHEAD
USE K EXIT
PLACE FIXED MESSAGE SIGN
500' SOUTH OF BELL ROAD

GAS EXIT 333
CITGO MOBIL
PETRO SHELL
KWIK TRIP

39 RAMP CLOSED
PLACE FIXED MESSAGE SIGN

Tourist Info
EXIT 333

34 RAMP CLOSED
PLACE FIXED MESSAGE SIGN

SPRING STREET
50TH ROAD
2 MILE ROAD
3 MILE ROAD
CTH K
BELL ROAD
CTH G
STH 20
CTH C
KRAUT ROAD
GOLF ROAD
NORTHWESTERN AVE
W. FRONTAGE ROAD
E. FRONTAGE ROAD
IH 94
500'

2C 2D 2E 2F 1A

EXIT 329
K
Racine

1B
TO 20
M04-5 36" X 18"
M1-6 36" X 36"
M06-2 30" X 30"

FOOD SIS
RAMP CLOSED 43
PLACE FIXED MESSAGE SIGN

20 3 1/4
11 3 3/4
KR 5 1/4

35 RAMP CLOSED
COVER WITH FIXED MESSAGE SIGN

G 1/2
K 2 1/2
20 6

30 RAMP CLOSED
COVER WITH FIXED MESSAGE SIGN

EXIT 333
20
RACINE
MT PLEASANT

44 BLANK ORANGE

RAMP CLOSED
BEGINS XXX XX

REMOVE WHEN CONSTRUCTION BEGINS

40 FIXED MESSAGE SIGN TO BE PLACED 10 DAYS PRIOR TO CONSTRUCTION

LODGING SIS
RAMP CLOSED 41
PLACE FIXED MESSAGE SIGN

AMTRAK STATION
EXIT 333
RAMP CLOSED 42
PLACE FIXED MESSAGE SIGN

Gateway Tech College
Racine Campus
EXIT 333
36 RAMP CLOSED
PLACE FIXED MESSAGE SIGN

NOTES

1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE "I" SIGN.
2. ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND.
3. SEE FIXED MESSAGE SIGNS LAYOUT SHEETS FOR MORE INFORMATION.
4. COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO WORK ZONE TRAFFIC CONTROL SIGNING.
5. SIGNS TO BE PLACED 10 DAYS PRIOR TO CONSTRUCTION.

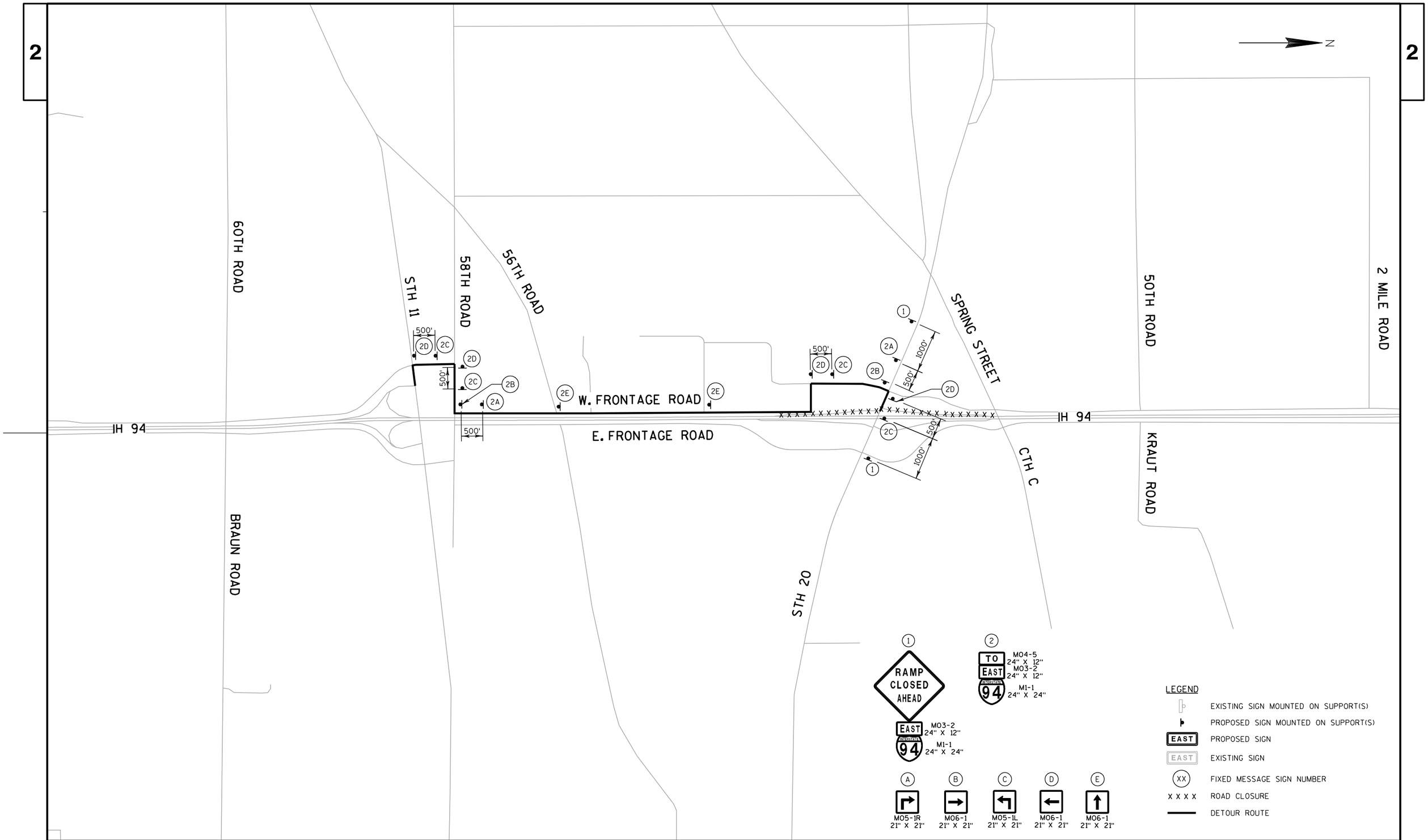
1 TO 20 M04-5 36" X 18" M1-6 36" X 36"
2 TO 20 M04-5 24" X 12" M1-6 24" X 24"

A M05-2R 30" X 30"
B M06-2 30" X 30"
C M05-1R 21" X 21"
D M06-1 21" X 21"
E M05-1L 21" X 21"
F M06-1 21" X 21"
G M06-1 21" X 21"

LEGEND

- EXISTING SIGN MOUNTED ON SUPPORT(S)
- PROPOSED SIGN MOUNTED ON SUPPORT(S)
- EAST PROPOSED SIGN
- EAST EXISTING SIGN
- XX FIXED MESSAGE SIGN NUMBER
- X X X X ROAD CLOSURE
- DETOUR ROUTE

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	DETOUR PLAN - STAGE 4A SOUTHBOUND EXIT RAMP CLOSURE	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	DETOUR PLAN - STAGE 4A SOUTHBOUND ENTRANCE RAMP CLOSURE	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\027007_dt.dgn PLOT DATE : 18-NOV-2013 15:55 PLOT BY : MSCD1S PLOT NAME : 027007_dt PLOT SCALE : 2000:1

2

2

N

60TH ROAD

STH 11

58TH ROAD

56TH ROAD

SPRING STREET

50TH ROAD

2 MILE ROAD

IH 94

W. FRONTAGE ROAD

E. FRONTAGE ROAD

IH 94

CTH C

KRAUT ROAD

BRAUN ROAD

STH 20

500'

1000'

58TH RD

W. FRONTAGE RD

E. FRONTAGE RD

IH 94

DETOUR AHEAD W20-2

M1-6 24" X 24"

DETOUR EAST 20 M4-8 24" X 12" M03-2 24" X 12" M1-6 24" X 24"

DETOUR WEST 20 M4-8 24" X 12" M03-4 24" X 12" M1-6 24" X 24"

END DETOUR 20 M4-8A 24" X 18" M1-6 24" X 24"

M05-1R 21" X 21"

M06-1 21" X 21"

M05-1L 21" X 21"

M06-1 21" X 21"

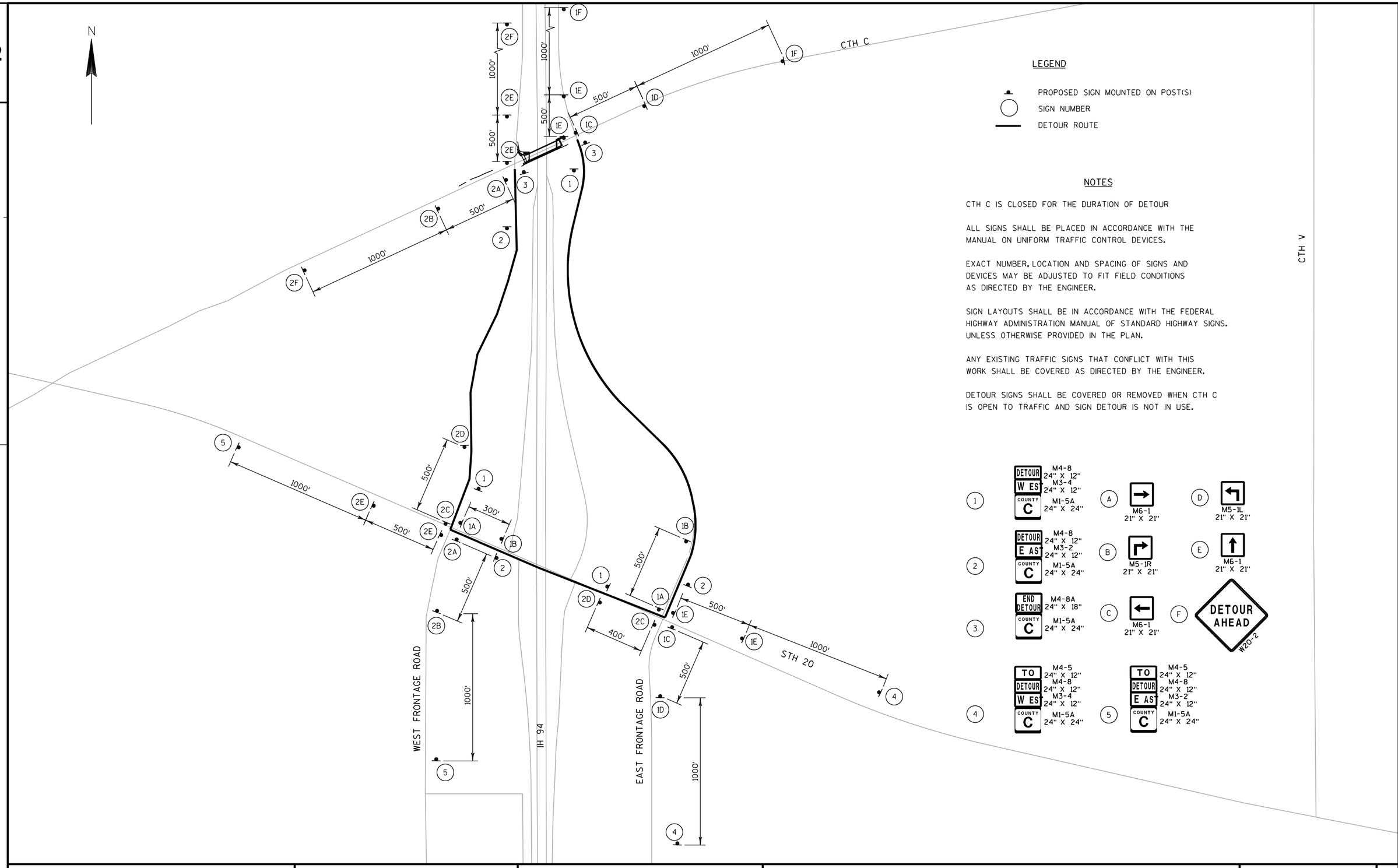
M06-1 21" X 21"

LEGEND

- EXISTING SIGN MOUNTED ON SUPPORT(S)
- PROPOSED SIGN MOUNTED ON SUPPORT(S)
- EAST — PROPOSED SIGN
- EAST — EXISTING SIGN
- XX — FIXED MESSAGE SIGN NUMBER
- X X X X — ROAD CLOSURE
- DETOUR ROUTE

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	DETOUR PLAN - STH 20 FULL NIGHTTIME CLOSURE	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\027008_dt.dgn PLOT DATE : 18-NOV-2013 15:55 PLOT BY : MSCD1S PLOT NAME : 027008_dt PLOT SCALE : 2000:1



LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- SIGN NUMBER
- DETOUR ROUTE

NOTES

CTH C IS CLOSED FOR THE DURATION OF DETOUR

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

EXACT NUMBER, LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS. UNLESS OTHERWISE PROVIDED IN THE PLAN.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS WORK SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN CTH C IS OPEN TO TRAFFIC AND SIGN DETOUR IS NOT IN USE.

1	DETOUR / W ES / COUNTY C — M4-8 24" X 12", M3-4 24" X 12", M1-5A 24" X 24"	A	M6-1 21" X 21"	D	M5-1L 21" X 21"
2	DETOUR / E AST / COUNTY C — M4-8 24" X 12", M3-2 24" X 12", M1-5A 24" X 24"	B	M5-1R 21" X 21"	E	M6-1 21" X 21"
3	END DETOUR / COUNTY C — M4-8A 24" X 18", M1-5A 24" X 24"	C	M6-1 21" X 21"	F	DETOUR AHEAD W20-2
4	TO / DETOUR / W ES / COUNTY C — M4-5 24" X 12", M4-8 24" X 12", M3-4 24" X 12", M1-5A 24" X 24"	5	TO / DETOUR / E AST / COUNTY C — M4-5 24" X 12", M4-8 24" X 12", M3-2 24" X 12", M1-5A 24" X 24"		

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	DETOUR PLAN - CTH C	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\027009_dt.dgn PLOT DATE : 18-NOV-2013 15:55 PLOT BY : MSCD1S PLOT NAME : 027009_dt PLOT SCALE : 600:1

2

+25.00
91.99' LT
MATCH EXISTING

+66.92
112.40' LT
MATCH EXISTING

+25.00
108.31' LT

+02.00
128.68' LT

IH 94 SB

IH 94 NB

+82.04
105.25' RT

+00.00
105.25' RT

+48.73
105.25' RT

+73.86
115.25' RT

+75.44
115.25' RT

+00.00
125.18' RT
MATCH EXISTING

+75.00
139.28' RT
MATCH EXISTING

+78.46
125.25' RT

+19.32
142.11' RT

+00.00
162.91' RT

MATCHLINE 859+50

MATCHLINE 859+50

+50.00
171.37' LT
MATCH EXISTING

+00.00
104.13' LT

+50.00
130.00' RT

+00.00
125.72' LT
MATCH EXISTING

+75.00
131.84' LT
MATCH EXISTING

+00.00
87.25' LT

WEST FRONTAGE ROAD

FENCE WOVEN
WIRE 4-FEET

+00.42
104.50' LT

+00.98
96.50' LT

+00.00
156.55' LT
MATCH EXISTING

+17.12
88.50' LT

+99.93
104.50' LT

+50.00
96.50' RT

IH 94 SB

IH 94 NB

+96.00
76.66' RT

+37.00
76.70' RT

+10.44
103.25' RT

+10.22
97.25' RT

+10.39
97.25' RT

EAST FRONTAGE ROAD

+75.00
123.80' RT

+04.96
87.25' RT

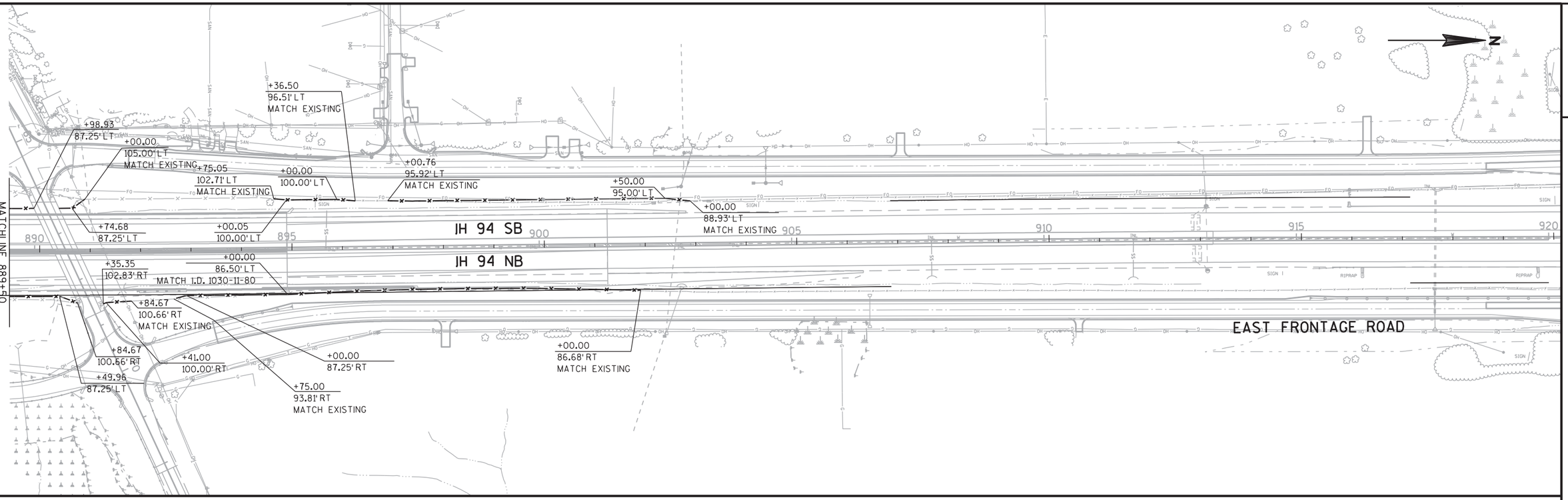
FENCE WOVEN
WIRE 4-FEET

MATCHLINE 859+50

MATCHLINE 889+50

PROJECT NO: 1033-02-70	HWY: IH 94/STH 20	COUNTY: RACINE	FENCING PLAN	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\027101_fn.dgn PLOT DATE : 31-JUL-2013 23:21 PLOT BY : MSCD1S PLOT NAME : PLOT SCALE : 200.000018:1



PROJECT NO: 1033-02-70	HWY: IH 94/STH 20	COUNTY: RACINE	FENCING PLAN	SHEET	E

2

X=591458.89
Y=181012.86

T 3 N
R 21 E
24 | 13
19 | 18

SECTION LINE 2648.07' N89°33'14"E

BEGIN PROJECT 1033-02-70
829+00.00
X = 594028.15
Y = 182169.01

810 815 820 825 830 835

SECTION LINE 2652.71' N0°08'43"W

T 3 N
R 21 E
R 22 E
24 | 24
19 | 19

X=594112.87
Y=178368.73

T 3 N
R 21 E
R 22 E
13 | 13
18 | 18

X=594106.88
Y=181033.47

T 3 N
R 21 E
R 22 E
13 | 13
18 | 18

X=594100.15
Y=183686.18

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	ALIGNMENT LAYOUT	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\027201_ad.dgn PLOT DATE : 31-JUL-2013 23:21 PLOT BY : MSCD1S PLOT NAME : 027201_ad PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

2

N

CURVE DATA											
CURVE NO.	PI	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	PT
1	839+47.69	594019.87	183216.67	0°19'28"	0°02'00"	486.49	972.97	0.69	171881.34	834+61.20	844+34.17
SW1	843+09.64	593943.80	183578.35	0°04'59"	0°02'00"	124.64	249.28	0.05	171956.59	841+85.00	844+34.28
SW2	851+81.71	593927.91	184450.24	5°36'19"	0°42'26"	396.54	792.45	9.70	8100.00	847+85.17	855+77.61
SW3	858+20.72	593851.29	185085.28	6°54'48"	4°00'24"	86.38	172.55	2.61	1430.00	857+34.34	859+06.89
SE1	839+75.32	594095.40	183244.80	0°12'00"	0°02'00"	299.87	599.73	0.26	171806.09	836+75.45	842+75.18
SE2	844+77.78	594093.81	183747.26	2°54'05"	0°42'58"	202.59	405.10	2.56	8000.00	842+75.18	846+80.28
SE3	859+70.51	594164.64	185238.40	18°14'17"	11°14'04"	81.86	162.34	6.53	510.00	856+66.65	860+50.99

X=591455.76
Y=183658.74

N89°24'20"E 2644.54' 1/4 LINE

841SW+85.00 RAMP SW =
841+85.00 IH 94, 75.25'LT
X = 593944.26
Y = 183453.71

PC SW1 — PI SW1 — PT SW1 — CURVE SW1 — 845SW — N1°16'28"W — PI 844SW+85.11 X = 593943.41 Y = 183753.81 — PC SW2 — 850SW — CURVE SW2 — PI SW2 — R/L RAMP SW — 855SW — PT SW2 — N6°52'48"W — PC SW3 — PI SW3 — CURVE SW3 — PT SW3 — 860SW — N0°02'01"E — 865NW

863SW+12.26 RAMP SW =
292+32.59 STH 20
X = 593851.58
Y = 185577.03

290

R/L IH 94

835 — PI 1 — 840 — CURVE 1 — PT 845 — 850 — 855 — 860 — 865

N0°07'43"W

PC 1 — N0°27'11"W — SECTION LINE — PC SE1 — CURVE SE1 — 840SE — 2652.71' — N0°08'43"W — PI SE1

836SE+75.45 RAMP SE =
836+75.45 IH 94, 75.25'RT
X = 594097.40
Y = 182944.94

PCC SE1/SE2 — CURVE SE2 — PI SE2 — 845SE — 844+16.34 IH94 =
X = 594018.81
Y = 183685.33

PT SE2 — 850SE — SECTION LINE — 2660.98' — N0°12'02"W — TOWN OF YORKVILLE — VILLAGE OF MOUNT PLEASANT

855SE — N2°43'11"E — R/L RAMP SE

PC SE3 — PI SE3 — 860SE — CURVE SE3 — PT SE3 — N20°57'28"E

861SE+56.06 RAMP SE =
296+46.42 STH 20
X = 594231.51
Y = 185412.97

865N

295

300

S88°40'22"E 2504.78' 1/4 LINE

X=594106.88
Y=181033.47

X=594100.15
Y=183686.18

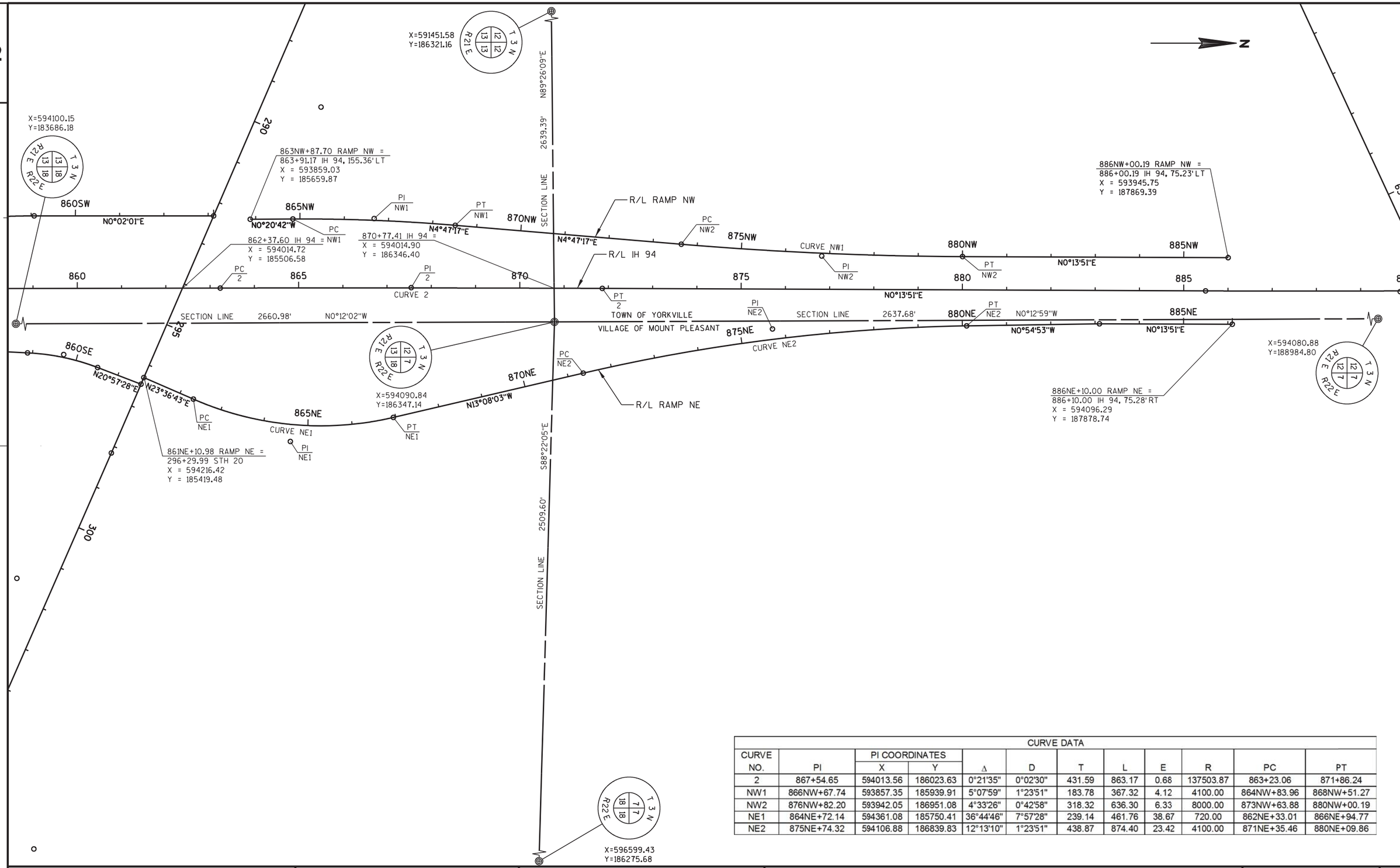
X=596604.26
Y=183628.16

X=594090.84
Y=186347.14

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	ALIGNMENT LAYOUT	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\027202_ad.dgn PLOT DATE : 31-JUL-2013 23:21 PLOT BY : MSCD1S PLOT NAME : 027202_ad PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42



CURVE DATA

CURVE NO.	PI	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	PT
2	867+54.65	594013.56	186023.63	0°21'35"	0°02'30"	431.59	863.17	0.68	137503.87	863+23.06	871+86.24
NW1	866NW+67.74	593857.35	185939.91	5°07'59"	1°23'51"	183.78	367.32	4.12	4100.00	864NW+83.96	868NW+51.27
NW2	876NW+82.20	593942.05	186951.08	4°33'26"	0°42'58"	318.32	636.30	6.33	8000.00	873NW+63.88	880NW+00.19
NE1	864NE+72.14	594361.08	185750.41	36°44'46"	7°57'28"	239.14	461.76	38.67	720.00	862NE+33.01	866NE+94.77
NE2	875NE+74.32	594106.88	186839.83	12°13'10"	1°23'51"	438.87	874.40	23.42	4100.00	871NE+35.46	880NE+09.86

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	ALIGNMENT LAYOUT	SHEET	E

2

57+45.00 CTH C
X = 593117.86
Y = 187914.21

60

N65°08'10"E

R/L CTH C

65

X=591445.71
Y=188952.35

N89°17'40"E

2635.37'

1/4 LINE

END PROJECT 1033-02-70
895+00.00
X = 594016.79
Y = 188768.95

X=594090.84
Y=186347.14

880NW

N0°13'51"E

885NW

880

885

PC
3

890

890+63.58 IH 94 =
67+39.92 CTH C
X = 594020.56
Y = 188332.54

CURVE 3

PI
3

PT
3

895

900

905

R/L IH 94

N0°38'53"W

N0°13'51"E

SECTION LINE 880NE 2637.68' N0°12'59"W 885NE

N0°54'53"W

N0°13'51"E

TOWN OF YORKVILLE

VILLAGE OF MOUNT PLEASANT

SECTION LINE 2639.82' N0°07'52"W

70

X=594080.88
Y=188984.80

X=594074.83
Y=191624.62

72+14.92 CTH C
X = 594451.53
Y = 188532.26

S88°35'16"E

2487.79'

75

1/4 LINE

X=596567.92
Y=188923.50

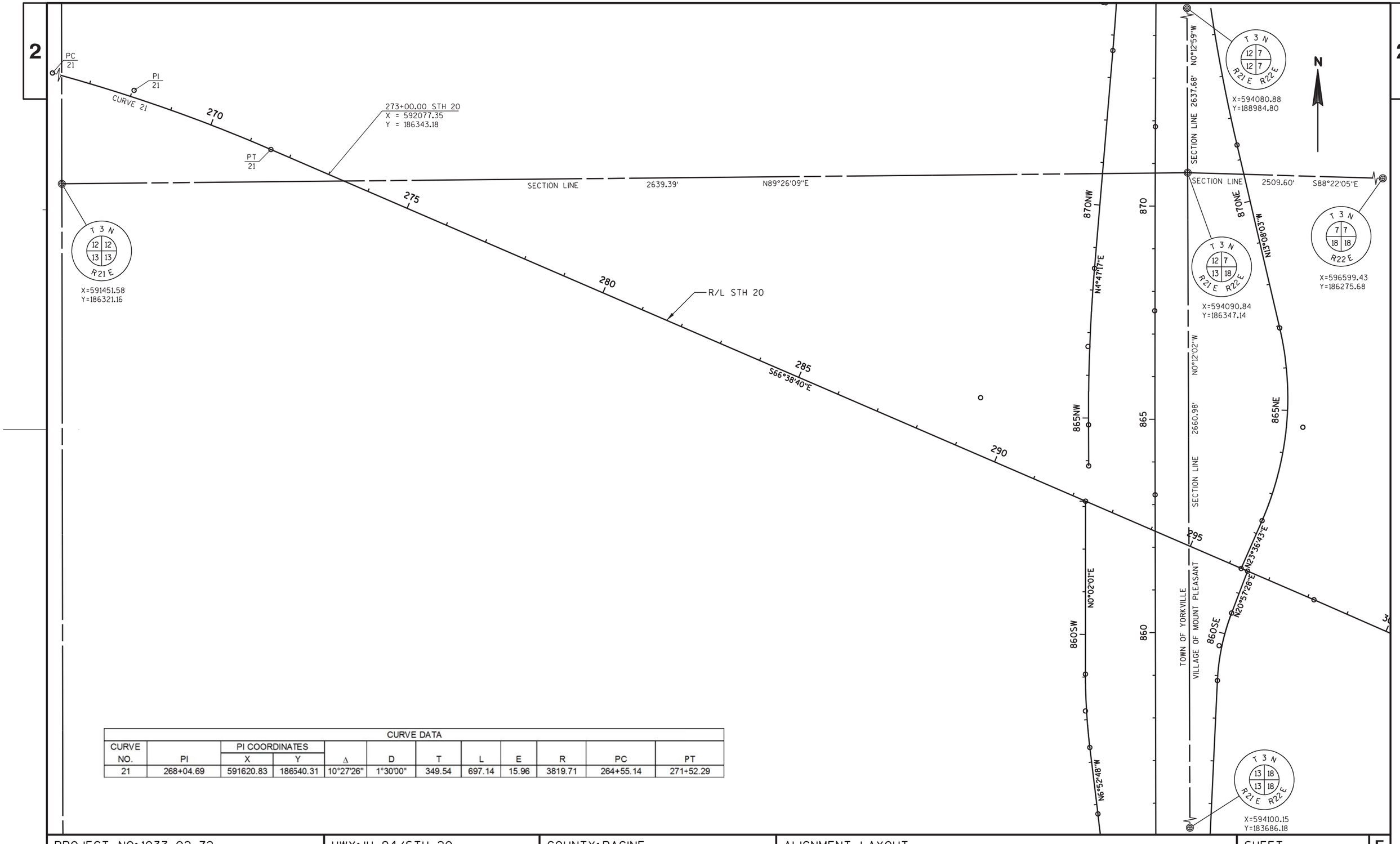
2

CURVE DATA											
CURVE NO.	PI	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	PT
3	889+89.14	594022.57	188258.10	0°52'44"	0°06'00"	439.52	879.03	1.69	57301.78	885+49.62	894+28.65

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	ALIGNMENT LAYOUT	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\027204_ad.dgn PLOT DATE : 31-JUL-2013 23:21 PLOT BY : MSCD1S PLOT NAME : 027204_ad PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42



CURVE DATA											
CURVE NO.	PI	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	PT
21	268+04.69	591620.83	186540.31	10°27'26"	1°30'00"	349.54	697.14	15.96	3819.71	264+55.14	271+52.29

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	ALIGNMENT LAYOUT	SHEET E

2

CURVE DATA											
CURVE NO.	PI	PI COORDINATES X	PI COORDINATES Y	Δ	D	T	L	E	R	PC	PT
22	321+32.17	596509.19	184417.44	10°50'59"	1°00'00"	544.11	1084.97	25.78	5729.62	315+88.05	326+73.03

T 3 N
12 | 7
13 | 18
R21 E R22 E

X=594090.84
Y=186347.14

N4°47'17"E

N15°08'03"W

865NW

865

865NE

TOWN OF YORKVILLE
VILLAGE OF MOUNT PLEASANT

295

N23°36'43"E

PI 298+15.83
X = 594387.03
Y = 185345.81

N66°38'40"E

N20°57'28"E

860SW

N0°02'01"E

860

860SE

N0°12'02"W

2660.98'

SECTION LINE

300

305

S66°22'21"E

310

R/L STH 20

315

PC
22

321+00.00 STH 20
X = 596488.26
Y = 184451.54

320

CURVE 22

PI
22

PT
22

T 3 N
18 | 18
18 | 18
R22 E

X=596604.26
Y=183628.16

855SW

N6°52'48"W

855

855SE

N0°07'43"W

N2°43'11"E

850SW

850

SOSE

T 3 N
13 | 18
13 | 18
R21 E R22 E

X=594100.15
Y=183686.18

T 3 N
7 | 7
18 | 18
R22 E

X=596599.43
Y=186275.68

N

N0°06'17"W

2647.52'

1/4 LINE

2

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	ALIGNMENT LAYOUT	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\027206_ad.dgn PLOT DATE : 31-JUL-2013 23:21 PLOT BY : MSCD1S PLOT NAME : 027206_ad PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

2

RAMP NE

SUPERELEVATION DATA	STATION	RATE	
		LEFT	RIGHT
SUPER TRANSITION	862+01	0.6%	-0.6%
BEGIN FULL SUPER	863+51	-5.7%	5.7%
END FULL SUPER	866+51	-5.7%	5.7%
SUPER EQUALS NORMAL CROWN	867+26	-2.0%	2.0%
REMOVE CROWN	867+76	FLAT	FLAT
SUPER EQUALS NORMAL CROWN	868+26	2.0%	-2.0%
SUPER EQUALS NORMAL CROWN	870+26	2.0%	-2.0%
BEGIN FULL SUPER	871+51	3.6%	-3.6%
END FULL SUPER	879+76	3.6%	-3.6%
SUPER EQUALS NORMAL CROWN	881+26	2.0%	-2.0%

RAMP SW

SUPERELEVATION DATA	STATION	RATE	
		LEFT	RIGHT
END NORMAL CROWN	856+00	-2.0%	2.0%
REMOVE CROWN	856+50	FLAT	FLAT
SUPER EQUALS NORMAL CROWN	857+00	2.0%	-2.0%
BEGIN FULL SUPER	857+75	5.2%	-5.2%
END FULL SUPER	858+75	5.2%	-5.2%
SUPER EQUALS NORMAL CROWN	859+50	2.0%	-2.0%
REMOVE CROWN	860+00	FLAT	FLAT
BEGIN NORMAL CROWN	860+50	-2.0%	2.0%

DATE 17DEC13 E S T I M A T E O F Q U A N T I T I E S

LINE 1033-02-72

NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	201.0105	CLEARING	STA	2.000	2.000
0020	201.0120	CLEARING	ID	67.000	67.000
0030	201.0205	GRUBBING	STA	2.000	2.000
0040	201.0220	GRUBBING	ID	67.000	67.000
0050	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	12.000	12.000
0060	203.0200	REMOVING OLD STRUCTURE (STATION) 0001. 862+44.2	LS	1.000	1.000
0070	203.0200	REMOVING OLD STRUCTURE (STATION) 0002. 862+31.0	LS	1.000	1.000
0080	203.0200	REMOVING OLD STRUCTURE (STATION) 0003. 890+83.23	LS	1.000	1.000
0090	203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL (STRUCTURE) 0001. B-51-23	LS	1.000	1.000
0100	204.0100	REMOVING PAVEMENT **P**	SY	96,019.000	96,019.000
0110	204.0120	REMOVING ASPHALTIC SURFACE MILLING	SY	37,750.000	37,750.000
0120	204.0150	REMOVING CURB & GUTTER **P**	LF	953.000	953.000
0130	204.0157	REMOVING CONCRETE BARRIER **P**	LF	13,547.000	13,547.000
0140	204.0165	REMOVING GUARDRAIL **P**	LF	1,112.000	1,112.000
0150	204.0170	REMOVING FENCE **P**	LF	8,881.000	8,881.000
0160	204.0180	REMOVING DELINEATORS AND MARKERS	EACH	85.000	85.000
0170	204.0195	REMOVING CONCRETE BASES	EACH	1.000	1.000
0180	204.0220	REMOVING INLETS	EACH	39.000	39.000
0190	204.0245	REMOVING STORM SEWER (SIZE) 0001. 12-INCH **P**	LF	140.000	140.000
0200	204.0245	REMOVING STORM SEWER (SIZE) 0002. 15-INCH **P**	LF	116.000	116.000
0210	204.0245	REMOVING STORM SEWER (SIZE) 0003. 18-INCH **P**	LF	228.000	228.000
0220	204.0245	REMOVING STORM SEWER (SIZE) 0004. 24-INCH **P**	LF	4,031.000	4,031.000
0230	204.0245	REMOVING STORM SEWER (SIZE) 0005. 30-INCH **P**	LF	156.000	156.000
0240	204.9090.S	REMOVING (ITEM DESCRIPTION) 0001. UNDERDRAIN	LF	4,793.000	4,793.000
0250	205.0100	EXCAVATION COMMON **P**	CY	164,444.000	164,444.000
0260	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 0001. B-51-129	LS	1.000	1.000
0270	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 0002. B-51-130	LS	1.000	1.000
0280	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 0003. B-51-131	LS	1.000	1.000
0290	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 0001. R-51-44	LS	1.000	1.000
0300	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 0002. R-51-45	LS	1.000	1.000
0310	206.6000.S	TEMPORARY SHORING	SF	6,840.000	6,840.000
0320	208.0100	BORROW **P**	CY	39,688.000	39,688.000
0330	208.1100	SELECT BORROW	CY	35,629.000	35,629.000
0340	209.0100	BACKFILL GRANULAR	CY	430.000	430.000
0350	210.0100	BACKFILL STRUCTURE **P**	CY	885.000	885.000
0360	213.0100	FINISHING ROADWAY (PROJECT) 0001. 1033-02-72	EACH	1.000	1.000
0370	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	619.000	619.000
0380	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH **P**	TON	87,049.000	87,049.000
0390	311.0110	BREAKER RUN	TON	2,200.000	2,200.000
0400	312.0110	SELECT CRUSHED MATERIAL **P**	TON	74,748.000	74,748.000

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DATE 17DEC13 E S T I M A T E O F Q U A N T I T I E S

LINE 1033-02-72

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0410	315.0100	ASPHALTIC BASE **P**	TON	18,709.000	18,709.000
0420	335.0100	RUBBLIZING	SY	11,840.000	11,840.000
0430	415.0070	CONCRETE PAVEMENT 7-INCH **P**	SY	118.000	118.000
0440	415.0105	CONCRETE PAVEMENT 10 1/2-INCH **P**	SY	9,055.000	9,055.000
0450	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	1,042.000	1,042.000
0460	416.1010	CONCRETE SURFACE DRAINS **P**	CY	3.700	3.700
0470	440.4410.S	INCENTIVE IRI RIDE	DOL	32,424.000	32,424.000
0480	455.0115	ASPHALTIC MATERIAL PG64-22	TON	253.000	253.000
0490	455.0120	ASPHALTIC MATERIAL PG64-28	TON	696.000	696.000
0500	455.0605	TACK COAT	GAL	1,691.000	1,691.000
0510	460.1110	HMA PAVEMENT TYPE E-10	TON	15,780.000	15,780.000
0520	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	1,543.000	1,543.000
0530	502.0100	CONCRETE MASONRY BRIDGES **P**	CY	867.000	867.000
0540	502.3200	PROTECTIVE SURFACE TREATMENT **P**	SY	1,640.000	1,640.000
0550	503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH **P**	LF	6,059.000	6,059.000
0560	504.0500	CONCRETE MASONRY RETAINING WALLS **P**	CY	699.000	699.000
0570	504.0900	CONCRETE MASONRY ENDWALLS **P**	CY	56.000	56.000
0580	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	11,610.000	11,610.000
0590	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	629,570.000	629,570.000
0600	505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	108,905.000	108,905.000
0610	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED **P**	EACH	116.000	116.000
0620	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 0001. B-51-129 **P**	EACH	36.000	36.000
0630	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 0002. B-51-130 **P**	EACH	36.000	36.000
0640	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 0003. B-51-131 **P**	EACH	32.000	32.000
0650	516.0500	RUBBERIZED MEMBRANE WATERPROOFING **P**	SY	360.000	360.000
0660	517.1010.S	CONCRETE STAINING (STRUCTURE) 0001. B-51-129 **P**	SF	12,720.000	12,720.000
0670	517.1010.S	CONCRETE STAINING (STRUCTURE) 0002. B-51-130 **P**	SF	10,585.000	10,585.000
0680	517.1010.S	CONCRETE STAINING (STRUCTURE) 0003. B-51-131 **P**	SF	10,145.000	10,145.000
0690	517.1010.S	CONCRETE STAINING (STRUCTURE) 0004. R-51-42 **P**	SF	21,600.000	21,600.000
0700	517.1010.S	CONCRETE STAINING (STRUCTURE) 0005. R-51-43 **P**	SF	4,335.000	4,335.000
0710	517.1010.S	CONCRETE STAINING (STRUCTURE) 0006. R-51-44 **P**	SF	2,225.000	2,225.000
0720	517.1010.S	CONCRETE STAINING (STRUCTURE) 0007. R-51-45 **P**	SF	2,595.000	2,595.000
0730	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 0001. R-51-42 **P**	SF	1,150.000	1,150.000
0740	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 0002. R-51-43 **P**	SF	400.000	400.000
0750	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 0003. R-51-44 **P**	SF	250.000	250.000
0760	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 0004. R-51-45 **P**	SF	250.000	250.000
0770	520.8000	CONCRETE COLLARS FOR PIPE	EACH	43.000	43.000
0780	522.0130	CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	107.000	107.000

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DATE 17DEC13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1033-02-72 QUANTITY
0790	522.1015	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH	EACH	2.000	2.000
0800	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	2.000	2.000
0810	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	13.000	13.000
0820	522.1030	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	EACH	4.000	4.000
0830	522.1036	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	EACH	2.000	2.000
0840	522.1060	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 60-INCH	EACH	2.000	2.000
0850	523.0534	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34X53-INCH	EACH	3.000	3.000
0860	550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	10,530.000	10,530.000
0870	550.2146	PILING CIP CONCRETE 14 X 0.375-INCH	LF	4,710.000	4,710.000
0880	601.0551	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A **P**	LF	3,841.000	3,841.000
0890	601.0555	CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A **P**	LF	151.000	151.000
0900	603.1142	CONCRETE BARRIER TYPE S42 **P**	LF	16,922.000	16,922.000
0910	603.1442	CONCRETE BARRIER TYPE S42C **P**	LF	987.000	987.000
0920	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	50,864.000	50,864.000
0930	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	76,376.000	76,376.000
0940	604.0400	SLOPE PAVING CONCRETE **P**	SY	102.000	102.000
0950	606.0200	RIPRAP MEDIUM	CY	55.000	55.000
0960	608.0315	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	LF	568.000	568.000
0970	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	189.000	189.000
0980	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	7,056.000	7,056.000
0990	608.0330	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	361.000	361.000
1000	608.0336	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	221.000	221.000
1010	608.0342	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 42-INCH	LF	161.000	161.000
1020	608.0348	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH	LF	16.000	16.000
1030	608.0360	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 60-INCH	LF	361.000	361.000
1040	608.0512	STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH	LF	480.000	480.000
1050	610.0134	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH	LF	740.000	740.000
1060	611.0530	MANHOLE COVERS TYPE J	EACH	9.000	9.000
1070	611.0535	MANHOLE COVERS TYPE J-SPECIAL	EACH	9.000	9.000
1080	611.0642	INLET COVERS TYPE MS	EACH	5.000	5.000
1090	611.0654	INLET COVERS TYPE V	EACH	117.000	117.000
1100	611.2004	MANHOLES 4-FT DIAMETER	EACH	6.000	6.000
1110	611.2005	MANHOLES 5-FT DIAMETER	EACH	22.000	22.000
1120	611.2006	MANHOLES 6-FT DIAMETER	EACH	6.000	6.000

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DATE 17DEC13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1033-02-72 QUANTITY
1130	611.2008	MANHOLES 8-FT DIAMETER	EACH	12.000	12.000
1140	611.2055	MANHOLES 5X5-FT	EACH	2.000	2.000
1150	611.3003	INLETS 3-FT DIAMETER	EACH	32.000	32.000
1160	611.3004	INLETS 4-FT DIAMETER	EACH	60.000	60.000
1170	611.3902	INLETS MEDIAN 2 GRATE	EACH	2.000	2.000
1180	611.8110	ADJUSTING MANHOLE COVERS	EACH	2.000	2.000
1190	611.8115	ADJUSTING INLET COVERS	EACH	2.000	2.000
1200	611.9800.S	PIPE GRATES	EACH	5.000	5.000
1210	612.0106	PIPE UNDERDRAIN 6-INCH	LF	12,396.000	12,396.000
1220	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	527.000	527.000
1230	612.0208	PIPE UNDERDRAIN UNPERFORATED 8-INCH	LF	450.000	450.000
1240	612.0210	PIPE UNDERDRAIN UNPERFORATED 10-INCH	LF	450.000	450.000
1250	612.0212	PIPE UNDERDRAIN UNPERFORATED 12-INCH	LF	450.000	450.000
1260	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	1,805.000	1,805.000
1270	612.0700	DRAIN TILE EXPLORATION	LF	150.000	150.000
1280	612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	3.000	3.000
1290	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	5.000	5.000
1300	614.0395	GUARDRAIL MOW STRIP CONCRETE	SY	374.000	374.000
1310	614.0800	CRASH CUSHIONS PERMANENT	EACH	1.000	1.000
1320	614.0905	CRASH CUSHIONS TEMPORARY	EACH	22.000	22.000
1330	614.2300	MGS GUARDRAIL 3	LF	3,119.000	3,119.000
1340	614.2500	MGS THRIE BEAM TRANSITION **P**	LF	112.000	112.000
1350	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	10.000	10.000
1360	614.2620	MGS GUARDRAIL TERMINAL TYPE 2	EACH	2.000	2.000
1370	616.0100	FENCE WOVEN WIRE (HEIGHT) 0001. 4-FT	LF	7,365.000	7,365.000
1380	616.0700.S	FENCE SAFETY	LF	600.000	600.000
1390	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 0001. 1033-02-72	EACH	1.000	1.000
1400	619.1000	MOBILIZATION 0001. 1033-02-72	EACH	1.000	1.000
1410	620.0300	CONCRETE MEDIAN SLOPED NOSE **P**	SF	200.000	200.000
1420	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	9.000	9.000
1430	623.0200	DUST CONTROL SURFACE TREATMENT	SY	300,000.000	300,000.000
1440	624.0100	WATER	MGAL	1,643.000	1,643.000
1450	627.0200	MULCHING	SY	100,862.000	100,862.000
1460	628.1104	EROSION BALES	EACH	60.000	60.000
1470	628.1504	SILT FENCE	LF	12,161.000	12,161.000
1480	628.1520	SILT FENCE MAINTENANCE	LF	6,081.000	6,081.000
1490	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	3.000	3.000
1500	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	3.000	3.000
1510	628.2004	EROSION MAT CLASS I TYPE B	SY	8,352.000	8,352.000
1520	628.2027	EROSION MAT CLASS II TYPE C	SY	13,225.000	13,225.000
1530	628.7005	INLET PROTECTION TYPE A	EACH	85.000	85.000
1540	628.7010	INLET PROTECTION TYPE B	EACH	48.000	48.000
1550	628.7015	INLET PROTECTION TYPE C	EACH	84.000	84.000
1560	628.7504	TEMPORARY DITCH CHECKS	LF	247.000	247.000
1570	628.7555	CULVERT PIPE CHECKS	EACH	6.000	6.000
1580	628.7560	TRACKING PADS	EACH	6.000	6.000
1590	628.7570	ROCK BAGS	EACH	75.000	75.000
1600	629.0210	FERTILIZER TYPE B	CWT	139.000	139.000
1610	630.0120	SEEDING MIXTURE NO. 20	LB	5,971.000	5,971.000
1620	630.0200	SEEDING TEMPORARY	LB	2,987.000	2,987.000
1630	631.1100	SOD EROSION CONTROL	SY	150.000	150.000

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DATE 17DEC13 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1033-02-72 QUANTITY
1640	633.0100	DELINEATOR POSTS STEEL	EACH	91.000	91.000
1650	633.0500	DELINEATOR REFLECTORS	EACH	533.000	533.000
1660	633.1000	DELINEATOR BRACKETS	EACH	398.000	398.000
1670	633.5200	MARKERS CULVERT END	EACH	27.000	27.000
1680	634.0614	POSTS WOOD 4X6-INCH X 14-FT	EACH	13.000	13.000
1690	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	18.000	18.000
1700	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	21.000	21.000
1710	634.0885	POSTS TUBULAR STEEL 2X2-INCH X 8.5-FT	EACH	9.000	9.000
1720	636.0100	SIGN SUPPORTS CONCRETE MASONRY **P**	CY	18.000	18.000
1730	636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	2,160.000	2,160.000
1740	637.1220	SIGNS TYPE I REFLECTIVE SH	SF	435.000	435.000
1750	637.2210	SIGNS TYPE II REFLECTIVE H	SF	526.620	526.620
1760	637.2230	SIGNS TYPE II REFLECTIVE F	SF	68.000	68.000
1770	638.2102	MOVING SIGNS TYPE II	EACH	9.000	9.000
1780	638.2601	REMOVING SIGNS TYPE I	EACH	2.000	2.000
1790	638.2602	REMOVING SIGNS TYPE II	EACH	93.000	93.000
1800	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	82.000	82.000
1810	638.3100	REMOVING STRUCTURAL STEEL SIGN SUPPORTS	EACH	4.000	4.000
1820	638.4000	MOVING SMALL SIGN SUPPORTS	EACH	3.000	3.000
1830	641.1200	SIGN BRIDGE CANTILEVERED (STRUCTURE) 0001. S-51-27	LS	1.000	1.000
1840	641.1200	SIGN BRIDGE CANTILEVERED (STRUCTURE) 0002. S-51-28	LS	1.000	1.000
1850	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 0001. 1033-02-72	DAY	580.000	580.000
1860	643.0300	TRAFFIC CONTROL DRUMS	DAY	91,219.000	91,219.000
1870	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	10,579.000	10,579.000
1880	643.0500	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	EACH	50.000	50.000
1890	643.0600	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	EACH	50.000	50.000
1900	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	21,113.000	21,113.000
1910	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	16,100.000	16,100.000
1920	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	1,643.000	1,643.000
1930	643.0900	TRAFFIC CONTROL SIGNS	DAY	28,667.000	28,667.000
1940	643.0910	TRAFFIC CONTROL COVERING SIGNS TYPE I	EACH	19.000	19.000
1950	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	15.000	15.000
1960	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	690.500	690.500
1970	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	738.000	738.000
1980	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 0001. 1033-02-72	EACH	1.000	1.000
1990	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	44,607.000	44,607.000
2000	645.0120	GEOTEXTILE FABRIC TYPE HR **P**	SY	165.000	165.000
2010	645.0140	GEOTEXTILE FABRIC TYPE SAS	SY	194.000	194.000
2020	646.0103	PAVEMENT MARKING PAINT 4-INCH	LF	187,477.000	187,477.000
2030	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	112,874.000	112,874.000
2040	646.0123	PAVEMENT MARKING PAINT 8-INCH	LF	2,567.000	2,567.000
2050	646.0126	PAVEMENT MARKING EPOXY 8-INCH	LF	5,546.000	5,546.000
2060	646.0600	REMOVING PAVEMENT MARKINGS **P**	LF	40,364.000	40,364.000
2070	646.0841.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH **P**	LF	12,430.000	12,430.000
2080	646.0843.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH **P**	LF	6,072.000	6,072.000
2090	647.0166	PAVEMENT MARKING ARROWS EPOXY TYPE 2	EACH	6.000	6.000
2100	647.0356	PAVEMENT MARKING WORDS EPOXY	EACH	2.000	2.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1033-02-72 QUANTITY
2110	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	20.000	20.000
2120	647.0576	PAVEMENT MARKING STOP LINE EPOXY 24-INCH	LF	84.000	84.000
2130	647.0746	PAVEMENT MARKING DIAGONAL EPOXY 24-INCH	LF	867.000	867.000
2140	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	2,929.000	2,929.000
2150	649.2100	TEMPORARY RAISED PAVEMENT MARKERS	EACH	672.000	672.000
2160	650.8500	CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 0001. 1033-02-72	LS	1.000	1.000
2170	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	15.000	15.000
2180	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	7,156.000	7,156.000
2190	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	20.000	20.000
2200	652.0325	CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH	LF	25.000	25.000
2210	652.0605	CONDUIT SPECIAL 2-INCH	LF	700.000	700.000
2220	652.0615	CONDUIT SPECIAL 3-INCH	LF	175.000	175.000
2230	652.0700.S	INSTALL CONDUIT INTO EXISTING ITEM	EACH	1.000	1.000
2240	652.0800	CONDUIT LOOP DETECTOR	LF	70.000	70.000
2250	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	13.000	13.000
2260	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	2.000	2.000
2270	653.0220	JUNCTION BOXES 18X6X6-INCH	EACH	2.000	2.000
2280	653.0905	REMOVING PULL BOXES	EACH	25.000	25.000
2290	654.0105	CONCRETE BASES TYPE 5	EACH	2.000	2.000
2300	655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	LF	7,745.000	7,745.000
2310	655.0525	ELECTRICAL WIRE TRAFFIC SIGNALS 6 AWG	LF	240.000	240.000
2320	655.0620	ELECTRICAL WIRE LIGHTING 8 AWG	LF	1,080.000	1,080.000
2330	655.0640	ELECTRICAL WIRE LIGHTING 1 AWG	LF	18.000	18.000
2340	655.0700	LOOP DETECTOR LEAD IN CABLE	LF	500.000	500.000
2350	655.0800	LOOP DETECTOR WIRE	LF	375.000	375.000
2360	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0001. HL-51-RZ	LS	1.000	1.000
2370	656.0400	ELECTRICAL SERVICE MAIN LUGS ONLY METER PEDESTAL (LOCATION) 0001. CCTV-51-0065	LS	1.000	1.000
2380	656.0500	ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0001. CCTV-51-0065	LS	1.000	1.000
2390	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	2.000	2.000
2400	657.0322	POLES TYPE 5-ALUMINUM	EACH	2.000	2.000
2410	659.0802	PLAQUES SEQUENCE IDENTIFICATION	EACH	4.000	4.000
2420	670.0100	FIELD SYSTEM INTEGRATOR	LS	1.000	1.000
2430	670.0200	ITS DOCUMENTATION	LS	1.000	1.000
2440	671.0132	CONDUIT HDPE 3-DUCT 2-INCH	LF	5,025.000	5,025.000
2450	671.0300	FIBER OPTIC CABLE MARKER	EACH	13.000	13.000
2460	672.0250	BASE CAMERA POLE 50-FT	EACH	1.000	1.000
2470	673.0105	COMMUNICATION VAULT TYPE 1	EACH	9.000	9.000
2480	673.0225.S	INSTALL POLE MOUNTED CABINET	EACH	1.000	1.000
2490	674.0200	CABLE MICROWAVE DETECTOR	LF	5,230.000	5,230.000
2500	674.0300	REMOVE CABLE	LF	4,290.000	4,290.000
2510	675.0300	INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY	EACH	4.000	4.000
2520	675.0400.S	INSTALL ETHERNET SWITCH	EACH	1.000	1.000
2530	677.0100	INSTALL CAMERA POLE	EACH	1.000	1.000
2540	677.0200	INSTALL CAMERA ASSEMBLY	EACH	1.000	1.000
2550	677.0300.S	INSTALL VIDEO ENCODER	EACH	1.000	1.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1033-02-72 QUANTITY
2560	677.9051.S	REMOVING 50-FOOT CAMERA POLE	EACH	1.000	1.000
2570	677.9200.S	REMOVING CCTV CAMERA	EACH	1.000	1.000
2580	678.0006	INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT	LF	2,970.000	2,970.000
2590	678.0300	FIBER OPTIC SPLICE	EACH	6.000	6.000
2600	678.0400	FIBER OPTIC TERMINATION	EACH	6.000	6.000
2610	678.0500	COMMUNICATION SYSTEM TESTING	LS	1.000	1.000
2620	690.0250	SAWING CONCRETE	LF	6,627.000	6,627.000
2630	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	800.000	800.000
2640	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	3,000.000	3,000.000
2650	SPV.0035	SPECIAL 4000. HPC MASONRY STRUCTURES **P**	CY	2,211.000	2,211.000
2660	SPV.0045	SPECIAL 0001. TRUCK MOUNTED ATTENUATOR	DAY	150.000	150.000
2670	SPV.0045	SPECIAL 0002. PCMS REMOTE COMMUNICATIONS	DAY	738.000	738.000
2680	SPV.0060	SPECIAL 0002. EXPOSING EXISTING UTILITY PAVED AREA	EACH	40.000	40.000
2690	SPV.0060	SPECIAL 0003. TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES	EACH	25.000	25.000
2700	SPV.0060	SPECIAL 0004. EXPOSING EXISTING UTILITY UNPAVED AREA	EACH	40.000	40.000
2710	SPV.0060	SPECIAL 0009. EROSION CONTROL FILTER BAGS	EACH	45.000	45.000
2720	SPV.0060	SPECIAL 0016. MOBILIZATION EMERGENCY PAVEMENT REPAIR	EACH	4.000	4.000
2730	SPV.0060	SPECIAL 0030. SILT FENCE DRAINAGE OUTLET EROSION CONTROL FILTER BAGS	EACH	30.000	30.000
2740	SPV.0060	SPECIAL 0052. 24-HOUR BASELINE VIBRATION MONITORING	EACH	52.000	52.000
2750	SPV.0060	SPECIAL 0053. DAILY VIBRATION MONITORING	EACH	26.000	26.000
2760	SPV.0060	SPECIAL 0070. BASELINE CPM PROGRESS SCHEDULE	EACH	1.000	1.000
2770	SPV.0060	SPECIAL 0071. CPM PROGRESS SCHEDULE UPDATES AND ACCEPTED REVISIONS	EACH	50.000	50.000
2780	SPV.0060	SPECIAL 1000. CONCRETE CONTROL CABINET BASES SPECIAL	EACH	1.000	1.000
2790	SPV.0060	SPECIAL 1001. LIGHTING CONTROL CABINET SPECIAL	EACH	1.000	1.000
2800	SPV.0060	SPECIAL 2000. REMOVING ELECTRICAL SERVICE METER BREAKER PEDESTAL	EACH	2.000	2.000
2810	SPV.0060	SPECIAL 2010. REMOVING CONTROLLER CABINET BASE	EACH	2.000	2.000
2820	SPV.0060	SPECIAL 2020. REMOVING CONTROLLER CABINET	EACH	2.000	2.000
2830	SPV.0060	SPECIAL 2040. INSTALL ANTENNA	EACH	1.000	1.000
2840	SPV.0060	SPECIAL 2050. INSTALL 900 MHZ RADIO	EACH	1.000	1.000
2850	SPV.0060	SPECIAL 2060. REFOCUS PORTABLE VIDEO SURVEILLANCE SYSTEM	EACH	4.000	4.000
2860	SPV.0060	SPECIAL 2070. INSTALL WIRELESS ETHERNET BRIDGE	EACH	1.000	1.000
2870	SPV.0060	SPECIAL 2080. INSTALL PORTABLE VIDEO SURVEILLANCE SYSTEM	EACH	2.000	2.000
2880	SPV.0060	SPECIAL 2090. INSTALL TEMPORARY VEHICLE DETECTOR ASSEMBLY	EACH	2.000	2.000
2890	SPV.0060	SPECIAL 2100. GROUND ROD	EACH	4.000	4.000
2900	SPV.0060	SPECIAL 4100. PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	20.000	20.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	1033-02-72 QUANTITY
2910	SPV.0060	SPECIAL 4110. PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	20.000	20.000
2920	SPV.0060	SPECIAL 4120. ANCHOR SLAB INLET COVER	EACH	4.000	4.000
2930	SPV.0085	SPECIAL 4300. BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES	LB	5,100.000	5,100.000
2940	SPV.0090	SPECIAL 0001. CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE	LF	6,379.000	6,379.000
2950	SPV.0090	SPECIAL 0002. GLARE SCREENS TEMPORARY	LF	21,413.000	21,413.000
2960	SPV.0090	SPECIAL 0030. REMOVING PAVEMENT MARKINGS WATER BLASTING	LF	44,156.000	44,156.000
2970	SPV.0090	SPECIAL 0051. DRAIN SLOTTED VANE LONGITUDINAL	LF	60.000	60.000
2980	SPV.0090	SPECIAL 0071. CONCRETE CURB AND GUTTER 4-INCH SLOPED 60-INCH TYPE A **P**	LF	887.000	887.000
2990	SPV.0090	SPECIAL 4400. FENCE DECORATIVE BRIDGE	LF	422.000	422.000
3000	SPV.0090	SPECIAL 4410. FENCING DECORATIVE WALL	LF	186.000	186.000
3010	SPV.0105	SPECIAL 0001. FIELD OFFICE FIXED	LS	1.000	1.000
3020	SPV.0105	SPECIAL 0002. REMOVE LOOP DETECTOR WIRE AND LEAD IN CABLE I-94 EB RAMPS & STH 20	LS	1.000	1.000
3030	SPV.0105	SPECIAL 0003. TRAFFIC SIGNAL MITIGATION FOR CONSTRUCTION STAGING	LS	1.000	1.000
3040	SPV.0105	SPECIAL 0005. PAVEMENT CLEANUP PROJECT 1033-02-72	LS	1.000	1.000
3050	SPV.0105	SPECIAL 0051. SURVEY PROJECT 1033-02-72	LS	1.000	1.000
3060	SPV.0105	SPECIAL 1001. UNDERDECK LIGHTING SPECIAL (STH 20)	LS	1.000	1.000
3070	SPV.0105	SPECIAL 1002. LIGHTING SYSTEM INTEGRATOR	LS	1.000	1.000
3080	SPV.0105	SPECIAL 1003. LIGHTING SYSTEM SURVEY	LS	1.000	1.000
3090	SPV.0165	SPECIAL 4700. LONGITUDINAL GROOVING BRIDGE DECK **P**	SF	45,480.000	45,480.000
3100	SPV.0165	SPECIAL 4710. WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT **P**	SF	26,235.000	26,235.000
3110	SPV.0165	SPECIAL 4720. TEMPORARY WALL WIRE FACE MECH STABILIZED EARTH LRFD/QMP PILOT **P**	SF	1,195.000	1,195.000
3120	SPV.0180	SPECIAL 0001. GEOGRID REINFORCEMENT	SY	4,000.000	4,000.000
3130	SPV.0180	SPECIAL 0002. GEOTEXTILE FABRIC TYPE FF	SY	200.000	200.000
3140	SPV.0180	SPECIAL 0004. REMOVING RUMBLE STRIPS	SY	3,106.000	3,106.000
3150	SPV.0180	SPECIAL 0007. CONCRETE PAVEMENT REPAIR SPECIAL	SY	1,620.000	1,620.000
3160	SPV.0180	SPECIAL 0008. TOPSOIL SPECIAL	SY	100,862.000	100,862.000
3170	SPV.0180	SPECIAL 0009. CONCRETE PAVEMENT 12-INCH SPECIAL **P**	SY	96,775.000	96,775.000
3180	SPV.0180	SPECIAL 4800. SLOPE PAVING CRUSHED AGGREGATE SPECIAL **P**	SY	220.000	220.000
3190	SPV.0195	SPECIAL 0001. COLD PATCH	TON	20.000	20.000
3200	SPV.0195	SPECIAL 0003. ASPHALTIC PAVEMENT REPAIR SPECIAL	TON	674.000	674.000
3210	SPV.0195	SPECIAL 0004. HMA LONGITUDINAL JOINT REPAIR	TON	1,686.000	1,686.000

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CLEARING AND GRUBBING

CATEGORY	ROADWAY	STATION		STATION	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA	201.0120 CLEARING ID	201.0220 GRUBBING ID
1000	IH 94 NB								
		860+00	-	861+00	RT	1	1	--	--
	IH 94 SB								
		861+00	-	862+00	LT	1	1	--	--
			894+67		LT	--	--	8	8
	RAMP NW								
		867+34			LT	--	--	11	11
		867+89			LT	--	--	24	24
		871+88			LT	--	--	8	8
		872+14			LT	--	--	7	7
		872+20			LT	--	--	9	9
TOTALS						2	2	67	67

REMOVING SMALL PIPE CULVERTS

CATEGORY	ROADWAY	STATION	LOCATION	DESCRIPTION	203.0100 EACH
1000	IH 94				
		834+91	124'LT	36" X 68' CMCP	1
		834+93	125'LT	36" X 68' CMCP	1
		835+32	63'RT	24" X 315' CMCP	1
		835+34	62'RT	24" X 315' CMCP	1
		876+79	55'RT	15" X 117' RCCP	1
		880+83	22'RT	24" X 260' CMCP	1
		884+73	77'RT	18" X 162' CMCP	1
		888+38	C/L	30" X 156' CMCP	1
	RAMP NW				
		876+03	87'LT	15" X 79' CMCP	1
		876+78	43'LT	18" X 67' CMCP	1
	RAMP SE				
		839+81	70'RT	24" X 103' CMCP	1
	RAMP NE				
		873+01	15'LT	36" X 54' RCCP	1
TOTALS					12

REMOVING PAVEMENT

CATEGORY	LOCATION	STATION	TO	STATION	204.0100 REMOVING PAVEMENT SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
1000	NB IH 94					
		810+00	-	822+00	3,467	3,467
		822+00	-	829+00	4,696	4,696
		829+00	-	895+00	35,966	8,656
		895+00	-	901+35	4,207	-
		901+35	-	913+35	3,467	3,467
	SB IH 94					
		822+00	-	829+00	4,620	4,620
		829+00	-	895+00	34,609	8,656
		895+00	-	901+35	4,188	4,188
	CTH C					
		65+95	-	68+75	747	-
	EAST FRONTAGE RD					
		822+72	-	823+10	52	-
	TOTAL				96,019	37,750

REMOVING CURB & GUTTER

CATEGORY	ROADWAY	STATION	STATION	OFFSET	204.0150 LF
1000	NB IH 94				
		832+88	833+92	RT	114
	RAMP NW				
		876+04	877+73	LT	175
	RAMP SW				
		850+84	853+37	RT	253
	RAMP NE				
		876+09	879+58	LT	351
	CTH C				
		65+95	66+19	LT	25
		68+48	68+75	RT	30
		68+70	68+75	LT	5
	TOTAL				953

REMOVING CONCRETE BARRIER

CATEGORY	ROADWAY	STATION	STATION	OFFSET	204.0157 LF
1000	IH 94				
		810+00	- 890+36	MEDIAN	8,038
		890+86	- 913+35	MEDIAN	2,253
		855+25	- 861+04	RT	579
		863+26	- 875+79	RT	1,253
		855+41	- 861+57	LT	618
		863+79	- 871+83	LT	806
	TOTAL				13,547

REMOVING GUARDRAIL

CATEGORY		FROM STA	OFFSET	TO STA	OFFSET	204.0165 LF
1000	NB IH 94					
		854+42	56'RT	855+25	54'RT	83
	SB IH 94					
		871+81	66'LT	872+66	69'LT	85
	RAMP SE					
		853+35	36'RT	856+21	23'RT	286
	RAMP NE					
		878+10	14'RT	882+18	12'RT	408
	CTH C					
		65+92	72'LT	66+19	22'LT	116
		65+65	32'RT	65+97	22'RT	32
		68+48	22'RT	69+12	30'RT	64
		68+75	22'LT	69+13	30'LT	38
	TOTAL					1,112

REMOVING FENCE

CATEGORY	ROADWAY	FROM STA	APPROX OFFSET	TO STA	APPROX OFFSET	204.0170 LF
1000	NB IH 94					
		822+50	92'RT	823+07	92'RT	57
		827+75	103'RT	831+00	125'RT	200
		836+20	77'RT	855+95	87'RT	1,593
		860+91	88'RT	861+04	55'RT	35
		863+31	54'RT	872+14	85'RT	920
		877+00	89'RT	890+85	101'RT	1,381
		891+36	103'RT	891+92	97'RT	57
		892+76	94'RT	895+00	87'RT	224
		895+00	85'RT	901+00	84'RT	600
	SB IH 94					
		822+00	92'LT	826+14	92'LT	414
		828+60	92'LT	829+25	92'LT	65
		857+04	112'LT	860+50	116'LT	346
		863+79	68'LT	863+83	71'LT	12
		877+25	171'LT	880+50	171'LT	325
		883+26	152'LT	888+03	126'LT	478
		888+76	132'LT	889+86	114'LT	112
		890+37	114'LT	890+98	105'LT	62
		895+00	100'LT	903+00	97'LT	800
	RAMP NW					
		863+50	110'LT	872+20	91'LT	917
	RAMP SW					
		846+67	112'LT	848+50	116'LT	177
	RAMP NE					
		876+98	17'RT	878+05	14'RT	106
TOTAL						8,881

REMOVING INLETS

CATEGORY	ROADWAY	STATION	OFFSET FT	204.0220 EACH
1000	IH 94			
		820+32	8'LT	1
		822+84	8'LT	1
		826+33	8'LT	1
		829+81	8'LT	1
		830+82	8'LT	1
		832+33	8'LT	1
		833+80	79'RT	1
		835+35	9'LT	1
		836+07	128'RT	1
		839+82	4'LT	1
		843+30	4'LT	1
		846+78	4'LT	1
		850+30	4'LT	1
		853+79	4'LT	1
		856+80	4'LT	1
		862+53	70'LT	1
		862+75	55'LT	1
		863+38	52'RT	1
		863+90	65'LT	1
		865+76	4'LT	1
		869+78	4'LT	1
		869+78	8'LT	1
		873+03	160'LT	1
		873+16	95'LT	1
		873+56	89'RT	1
		873+77	4'LT	1
		876+80	4'LT	1
		876+81	91'LT	1
		880+57	4'LT	1
		884+73	4'LT	1
		888+28	4'LT	1
		888+48	77'RT	1
		890+90	108'RT	1
		890+31	121'LT	1
		891+38	112'RT	1
		892+27	4'LT	1
		895+77	4'LT	1
		899+77	4'LT	1
		902+81	4'LT	1
TOTAL				39

REMOVING UNDERDRAIN

CATEGORY	ROADWAY	STATION	-	STATION	LOCATION	204.9090.S LF
1000	IH 94					
		826+34	-	829+80	9' LT	346
		832+34	-	835+34	9' LT	300
		835+35	-	839+82	3' LT	447
		843+31	-	846+78	3' LT	347
		850+31	-	853+78	3' LT	347
		856+81	-	861+22	3' LT	441
		863+53	-	865+76	3' LT	223
		869+79	-	873+76	3' LT	397
		876+80	-	880+57	3' LT	377
		880+57	-	884+73	3' LT	416
		884+73	-	888+28	3' LT	355
		888+28	-	892+27	3' LT	399
		895+78	-	899+76	3' LT	398
TOTALS						4,793

REMOVING STORM SEWER

CATEGORY	ROADWAY	STATION		STATION		204.0245.0001 12-INCH LF	204.0245.0002 15-INCH LF	204.0245.0003 18-INCH LF	204.0245.0004 24-INCH LF	204.0245.0005 30-INCH LF
1000	STAGE 2									
	IH 94									
		829+80	-	829+80	RT	--	--	--	88	--
		835+20	-	835+50	RT	--	--	--	227	--
		835+20	-	836+00	RT	55	--	--	--	--
		839+80	-	839+80	RT	85	--	--	--	--
		839+80	-	839+80	RT	--	--	--	95	--
		846+80	-	846+80	RT	--	--	--	75	--
		853+80	-	853+80	RT	--	--	--	75	--
		869+80	-	869+80	RT	--	--	--	180	--
		873+50	-	873+80	RT	--	--	--	175	--
		876+80	-	876+80	RT	--	116	--	--	--
		884+80	-	884+80	RT	--	--	162	--	--
		888+20	-	888+50	RT	--	--	--	--	136
		902+80	-	902+80	AEW	--	--	--	24	--
	RAMP NE									
		87305	-	87305	RT/LT	--	--	--	55	--
	STAGE 4									
		829+80	-	832+35	CL	--	--	--	550	--
		839+80	-	843+30	CL	--	--	--	350	--
		846+80	-	850+30	CL	--	--	--	350	--
		853+80	-	856+80	CL	--	--	--	300	--
		865+80	-	869+80	CL	--	--	--	400	--
		873+10	-	873+80	LT	--	--	--	258	--
		873+80	-	876+80	CL	--	--	--	300	--
		880+60	-	880+75	LT	--	--	--	104	--
		888+00	-	888+00	AEW	--	--	--	--	20
		880+30	-	880+30	LT	--	--	--	75	--
		892+30	-	895+80	CL	--	--	--	350	--
	RAMP NW									
		876+50	-	876+80	LT	--	--	66	--	--
TOTAL						140	116	228	4,031	156

REMOVING DELINEATORS AND MARKERS

CATEGORY	STATION			204.0180 REMOVING DELINEATORS AND MARKERS EACH	COMMENTS
1000	IH 94 SOUTHBOUND				
	829+00	-	895+00	16	DELINEATORS
	IH 94 NORTHBOUND				
	829+00	-	895+00	14	DELINEATORS
	IH 94 NORTHBOUND EXIT RAMP				
	829+00	-	895+00	27	DELINEATORS
	IH 94 SOUTHBOUND ENTRANCE RAMP				
	829+00	-	895+00	28	DELINEATORS
	TOTAL			85	

TEMPORARY SHORING

CATEGORY	STAGE	LOCATION	206.6000.S TEMPORARY SHORING SF
1000	2	IH 94 NB	1,600
		TOTAL	1,600

3

REMOVING RUMBLE STRIPS

CATEGORY	ROADWAY	STATION		STATION	SPV.0180.0004 SY
1000	IH 94 SB				
		822+00	-	861+30	1,584
		863+60	-	901+35	1,522
		TOTAL			3,106

FINISHING ROADWAY PROJECT 1033-02-72

CATEGORY	STAGE		213.0100.0001 EACH
1000	ALL	PROJECT	1
	TOTAL		1

EARTHWORK

Division	From/To Station	Location	Excavation Common (1) Cut (2)	(item # 205.0100) EBS Excavation (3)	Salvaged/Unusable Pavement Material (4)	Available Material (5)	Reduced EBS in Fill (6) Factor 0.80	Expanded EBS Backfill (7) Factor 1.30	Unexpanded Fill (8)	Expanded Fill (9) Factor 1.20	Mass Ordinate +/- (10)	Waste (11)	Borrow (12) (item #208.0100)	Select Borrow (item #208.1100)
1	819+94 to 84500	TEMP WIDENING	2,514	503	0	2,514	402	654	144	-310	2,824		2,824	654
1	851+50 to 855+00	TEMP WIDENING	258	52	0	258	42	68	145	124	134		134	68
1	872+00 to 878+00	TEMP WIDENING	354	71	0	354	57	92	439	459	-105		-105	92
1	879+00 to 902+91	TEMP WIDENING	2,106	421	0	2,106	337	547	76	-313	2,419		2,419	547
2	816+94 to 861+00	IH 94 NB	32,444	6,489	10,485	21,959	5,191	8,436	20,910	18,863	3,096		3,096	8,436
2	864+00 to 906+41	IH 94 NB	28,419	5,684	10,092	18,327	4,547	7,389	33,957	35,291	-16,964		-16,964	7,389
2	850+14 to 858+05	RAMP SE	4,267	853	361	3,906	682	1,109	1,747	1,278	2,628		2,628	1,109
2	864+55 to 876+79	RAMP NE	12,379	2,476	559	11,820	1,981	3,219	17,778	18,956	-7,137		-7,137	3,219
2	293+00 to 295+75	STH 20	2,967	593	0	2,967	474	771	31	-532	3,499		3,499	771
2	65+95 to 68+75	CTH C	30	6	11	19	5	8	33	33	-14		-14	8
Division 1 & 2 Subtotal			85,738	17,148	21,508	64,230	13,718	22,292	75,260	73,850	-9,619	38,656	9,619	22,292
4	819+64 to 861+00	IH 94 SB	18,147	3,629	9,771	8,376	2,903	4,718	9,447	7,852	523		523	4,718
4	864+00 to 902+92	IH 94 SB	29,361	5,872	9,260	20,101	4,698	7,634	11,829	8,558	11,543		11,543	7,634
4	864+96 to 873+50	RAMP NW	3,060	612	390	2,670	490	796	22,709	26,663	-23,993		-23,993	796
4	852+17 to 860+38	RAMP SW	731	146	375	356	117	190	15,531	18,497	-18,142		-18,142	190
Division 4 Subtotal			51,299	10,259	19,797	31,502	8,207	13,337	59,516	61,570	-30,068	30,056	30,068	13,337
Grand Total			137,037	27,407	41,304	95,732	21,926	35,629	134,775	135,420	-39,688	68,711	39,688	35,629
			Total Exc Common	164,444										

1) Excavation Common is the sum of the Cut and EBS Excavation columns. Item number 205.0100. EBS for roads is estimated to be 20% of Common Excavation Quantity
2) Salvaged/Unusable Pavement Material is included in Cut unless existing pavement is below subgrade. (Existing Pavement EBS)
3) EBS Excavation to be backfilled with Select Borrow or Select Crushed Material
4) Existing pavement volume (CY), not available for fill
5) Available Material = Cut - Salvaged/Unusable Pavement Material (0 if negative)
6) Reduced EBS in Fill - For Information Only. Excavated EBS material is assumed to be unused in Fills including outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
7) Expanded EBS Backfill - This is to be filled with Select Borrow material (Item number 208.1100) or Select Crushed Material (Item number 312.0110). EBS Backfill Factor = 1.3.
8) Unexpanded Fill = Fill from End Area Earthwork Volumes + Existing Pavement EBS
9) Fill Factor = 1.20, Expanded Fill = Unexpanded Fill x 1.20
10) Mass Ordinate = (Available Material) - (Expanded Fill). Plus quantity indicates an excess of material within the Division. Minus quantity indicates a shortage of material within the Division.
11) Waste = EBS + Salvaged/Unusable Pavement Material + (Mass Ordinate if positive within Division)
12) Borrow = Mass Ordinate if negative within Division

(CONTINUED)

BASE AGGREGATE ITEMS

CATEGORY	ROADWAY	STATION		STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	355.0100 RUBBLIZING SY
1000	IH 94 NB							
		816+94	-	829+00	--	5,539	--	--
		829+00	-	845+91	66	7,736	11,837	--
		845+91	-	848+70	--	713	2,090	--
		849+73	-	850+13	--	351	437	160
		850+13	-	850+72	--	175	169	236
		850+72	-	851+58	--	253	--	344
		851+58	-	858+41	--	2,243	--	2,732
		858+41	-	860+67	--	743	--	904
		863+73	-	865+70	--	621	--	--
		865+70	-	873+67	--	2,390	--	--
		873+67	-	873+30	--	284	397	--
		873+30	-	876+79	--	910	1,805	--
		876+79	-	880+10	--	847	1,812	--
		880+10	-	890+50	40	4,817	7,379	--
		890+50	-	893+00	--	876	1,693	--
		893+00	-	895+00	--	614	1,359	--
		895+00	-	906+41	--	5,014	--	--
	IH 94 SB							
		819+94	-	829+00	--	4,983	--	--
		829+00	-	847+00	--	5,893	12,706	--
		847+00	-	847+85	3	409	642	--
		847+85	-	849+73	--	469	1,027	--
		849+73	-	850+72	--	426	439	396
		850+72	-	852+16	--	193	--	576
		852+16	-	855+00	--	997	--	1,136
		855+00	-	861+02	--	1,899	--	2,408
		864+08	-	871+45	--	2,326	--	2,948
		871+45	-	873+30	--	647	--	--
		873+30	-	873+55	--	87	73	--
		873+55	-	874+12	--	146	121	--
		874+12	-	876+79	--	711	1,520	--
		876+79	-	885+00	32	3,845	5,880	--
		885+00	-	895+00	--	3,543	6,863	--
		895+00	-	902+91	--	4,369	--	--
	IH 94 Crossover							
		810+00	-	822+00	--	2,629	--	--
		901+35	-	913+35	--	2,625	--	--

BASE AGGREGATE ITEMS

CATEGORY	ROADWAY	STATION		STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	355.0100 RUBBLIZING SY
	RAMP SW							
		841+85	-	852+15	39	1,600	1,379	--
		852+15	-	861+41	51	2,263	3,001	--
	RAMP NW							
		867+23	-	873+64	45	1,717	2,397	--
		873+64		886+00	86	2,209	1,484	--
	RAMP SE							
		836+75	-	850+03	99	2,419	1,961	--
		850+03	-	855+90	15	1,322	2,032	--
	RAMP NE							
		862+90	-	876+79	73	2,397	2,962	--
		876+79	-	886+10	70	1,748	1,283	--
	CTH C							
		65+95	-	66+36	--	91	--	--
		68+44	-	68+75	--	60	--	--
	EAST FRONTAGE RD							
		822+72	-	823+10	--	66	--	--
	TOTALS				619	86,149	74,748	11,840

ASPHALTIC PAVEMENT ITEMS

CATEGORY	ROADWAY	STATION	STATION	315.0100 ASPHALTIC BASE TON	455.0605 TACK COAT GAL	455.0115 ASPHALTIC MATERIAL PG64-22 TON	455.0120 ASPHALTIC MATERIAL PG64-28 TON	460.1110 HMA PAVEMENT TYPE E-10 TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON
1000	IH 94 NB								
		816+94 -	829+00	--	340	47	129	2,934	--
		829+00 -	895+00	9,294	--	--	--	--	--
		895+00 -	906+41	--	312	43	119	2,694	--
	IH 94 SB								
		819+94 -	829+00	--	310	43	118	2,671	201
		829+00 -	895+00	9,415	--	--	--	--	1,179
		895+00 -	902+91	--	136	38	103	2,344	163
	IH 94 MEDIAN								
		810+00 -	822+00	--	173	24	66	1,495	--
		901+35 -	913+35	--	253	35	96	2,185	--
	RAMP NW								
		864+90 -	868+51	--	74	10	28	637	--
	RAMP SW								
		858+57 -	860+38	--	26	4	10	222	--
	RAMP SE								
		855+90 -	858+05	--	39	5	15	334	--
	RAMP NE								
		864+55 -	866+95	--	28	4	11	242	--
	EAST FRONTAGE RD								
		822+72 -	823+10	--	--	--	1	22	--
	TOTALS			18,709	1,691	253	696	15,780	1,543

CONCRETE ITEMS

CATEGORY	ROADWAY	STATIONS	415.0070 CONCRETE PAVEMENT 7-INCH SY	415.0105 CONCRETE PAVEMENT 10 1/2-INCH SY	SPV.0180.0009 CONCRETE PAVEMENT 12-INCH SPECIAL SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	440.4410.S INCENTIVE IRI RIDE DOL	416.1010 CONCRETE SURFACE DRAINS CY	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
1000	IH 94 NB								
		829+00 - 895+00	--	--	45,924	406	13,777	0.3	--
	IH 94 SB								
		829+00 - 895+00	--	--	45,491	407	13,647	0.4	--
	RAMP SW								
		841+85 - 852+15			1,487	--	500	--	--
		852+15 - 861+41	--	1,965			500	1.2	40
	RAMP NW								
		868+51 - 873+64	--	1,840	--	--	500	--	25
		873+64 - 886+00	--	--	1,187	--	500	--	--
	RAMP SE								
		836+75 - 850+03	--	--	1,551	--	500	--	--
		850+03 - 855+90	--	2,016	--	--	500	1.2	110
	RAMP NE								
		866+95 - 876+79	--	3,234	--	--	500	0.6	25
		876+79 - 886+10	--	--	1,135	--	500	--	--
	CTH C								
		65+95 - 68+75	91	--	--	119	500	--	--
		68+44 - 68+75	27	--	--	110	500	--	--
	TOTALS		118	9,055	96,775	1,042	32,424	3.7	200

3

CONCRETE MASONRY ENDWALLS

CATEGORY	ROADWAY	STATIONS			504.0900 CY
1000					
	IH 94 NORTH				
		5560+75 -	5561+25	50' LT	20.3
		5560+75 -	5561+25	50' RT	21.2
	IH 94 SOUTH				
		78+80 -	79+00	50' LT	7.3
		78+80 -	79+00	50' RT	7.2
	TOTAL				56.0

CONCRETE CURB & GUTTER ITEMS

CATEGORY	ROADWAY	STATION		STATION	601.0551 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A LF	601.0555 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE A LF	SPV.0090.0071 CONCRETE CURB AND GUTTER 4-INCH SLOPED 60-INCH TYPE A LF
1000	IH 94 NB						
		874+50 -		876+78	228	--	--
		890+50 -		893+00	250	--	--
	IH 94 SB						
		852+15 -		855+00	285	--	--
		871+45 -		873+55	210	--	--
		886+00 -		895+00	900	--	--
	RAMP SW						
		852+15 -		861+41	925	--	--
		859+00 -		861+41	241	--	--
	RAMP NW						
		868+95 -		873+56	180	--	280
		885+00		886+00	100	--	--
	RAMP SE						
		852+13 -		855+90	--	--	377
		852+03 -		855+90	387	--	--
		855+90 -		857+25	135	--	--
	RAMP NE						
		874+50 -		876+79	--	--	230
	CTH C						
		65+95 -		66+45	--	89	--
		68+35 -		68+75	--	62	--
	TOTALS				3,841	151	887

3

SANITARY SEWER

CATEGORY	ROADWAY	FROM STRUCTURE	TO STRUCTURE	LOCATION STATION	LOCATION OFFSET		LOCATION STATION	LOCATION OFFSET	608.0512 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 12-INCH EACH	NOTES
									EACH	
1000										
	IH 94	S2A	S2	872+27	262' LT	-	874+37	168 ' RT	480	MATCH EXISTING PIPE ELEVATIONS
	TOTAL								480	

DRAIN TILE

CATEGORY	LOCATION	*611.2004 MANHOLES 4-FT DIAMETER EACH	*611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	612.0208 PIPE UNDERDRAIN UNPERFORATED 8-INCH LF	612.0210 PIPE UNDERDRAIN UNPERFORATED 10-INCH LF	612.0212 PIPE UNDERDRAIN UNPERFORATED 12-INCH LF	612.0700 DRAIN TILE EXPLORATION LF	** DRAIN TILE STANDPIPE LF
1000	UNDISTRIBUTED	3	3	450	450	450	450	150	24
	TOTALS	3	3	450	450	450	450	150	24

NOTES
* ADDITIONAL QUANTITIES SHOWN ELSEWHERE.
** INCIDENTAL TO DRAIN TILE INSTALLATION, PROVIDED FOR INFORMATION ONLY.
ALL DRAIN TILE IS TO BE CONSTRUCTED OF CONCRETE

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\030201.ppt PLOT DATE : 12/3/2013 5:06:37 PM PLOT BY : MSCD1S PLOT NAME : 030201_mq10 PLOT SCALE : 1:1

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CONCRETE BARRIER

CATEGORY	ROADWAY	LOCATION	OFFSET	603.1142 CONCRETE BARRIER TYPE S42 LF	603.1442 CONCRETE BARRIER TYPE S42C LF	SPV.0090.0001 CONCRETE BARRIER TEMPORARY PRECAST LEFT IN PLACE LF	633.0500 DELINEATOR REFLECTORS (WHITE) EACH	633.0500 DELINEATOR REFLECTORS (YELLOW) EACH	633.1000 DELINEATOR BRACKETS EACH
1000	IH 94								
		810+00 - 829+00	LT	--	--	1,900	--	38	38
		816+94 - 826+00	RT	--	--	906	9	--	9
		819+94 - 829+00	LT	--	--	906	9	--	9
		829+00 - 860+83	LT&RT	6,366	--	--	--	127	127
		829+00 - 841+85	LT	1,285	--	--	13	--	13
		850+03 - 851+58	RT	155	--	--	2	--	2
		855+00 - 861+17	LT	617	--	--	6	--	6
		864+22 871+45	LT	723			7	--	7
		863+57 - 874+50	RT	1,093	--	--	11	--	11
		863+58 - 895+00	LT&RT	6,284	--	--	--	126	126
		893+00 - 895+00	RT	200	--	--	2	--	2
		894+50 - 897+50	RT	--	300	--	3	--	3
		895+00 - 913+35	LT	--	--	1,835	--	37	37
		900+00 906+41	RT	--	--	641	6	--	6
		901+00 - 902+91	LT	--	--	191	2	--	2
	RAMP SE								
		850SE+14 - 852SE+13	RT	199	--	--	--	--	--
	RAMP NW								
		867NW+23 - 868NW+95	RT	--	172	--	--	--	--
	RAMP SW								
		841SW+85 - 847SW+00	LT	--	515	--	--	--	--
SUBTOTALS				16,922	987	6,379	70	328	398
TOTALS				16,922	987	6,379	398		398

PIPE UNDERDRAIN ITEMS

CATEGORY	STATION			LOCATION	520.8000 CONCRETE COLLARS FOR PIPE EACH	612.0106 PIPE UNDERDRAIN 6-INCH LF	COMMENTS
1000	829+00	-	861+00	NB MEDIAN	11	3,200	CONNECT UNDERDRAIN TO NORTHBOUND MEDIAN INLETS
	863+50	-	895+00	NB MEDIAN	12	3,150	CONNECT UNDERDRAIN TO NORTHBOUND MEDIAN INLETS
	850+03	-	851+58	NB OUTSIDE	1	155	
	863+57	-	876+78	NB OUTSIDE	4	1,321	
	890+50	-	895+00	NB OUTSIDE	2	450	
	829+00	-	841+85	SB OUTSIDE	4	1,285	
	852+15	-	861+17	SB OUTSIDE	3	902	
	864+22	-	873+55	SB OUTSIDE	3	933	
	885+00	-	895+00	SB OUTSIDE	3	1,000	
				TOTALS	43	12,396	

FENCING ITEMS

CATEGORY	ROADWAY	LOCATION					616.0100 FENCE WOVEN WIRE 4-FT LF	616.0700.S FENCE SAFETY LF
1000	IH 94 SB	829+00	-	848+44	LT		155	--
		857+04	-	861+54	LT		455	--
		867+15	-	869+62	LT		247	--
		877+25	-	880+16	LT		291	--
		883+26	-	888+03	LT		478	--
		888+76	-	889+86	LT		112	--
		890+37	-	890+98	LT		62	--
		UNDISTRIBUTED					180	300
	SUBTOTAL						1,980	300
1000	IH 94 NB	822+50	-	823+10	RT		60	--
		827+75	-	831+00	RT		325	--
		833+75	-	852+00	RT		1,825	--
		853+36	-	855+95	RT		259	--
		860+91	-	861+04	RT		35	--
		876+75	-	890+85	RT		1,410	--
		891+36	-	891+92	RT		57	--
		892+76	-	902+00	RT		924	--
		UNDISTRIBUTED					490	300
	SUBTOTAL						5,385	300
	TOTAL						7,365	600

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	LOCATION	618.0100.0001 MAINTENANCE AND REPAIR OF HAUL ROADS 1033-02-72 EACH
1000	IH 94	1
TOTAL		1

COLD PATCH

CATEGORY	LOCATION	SPV.0195.0001 COLD PATCH TON
1000	STH 20	
	UNDISTRIBUTED	20
	TOTAL	20

TRUCK MOUNTED ATTENUATOR

CATEGORY	LOCATION	SPV.0045.0001 TRUCK MOUNTED ATTENUATOR DAY
1000	IH 94	
	UNDISTRIBUTED	150
	TOTAL	150

DUST CONTROL SURFACE TREATMENT

CATEGORY	LOCATION	623.0200 SY
1000	IH 94	250,000
	RAMP SW	10,000
	RAMP NW	10,000
	RAMP SE	10,000
	RAMP NE	10,000
	CTH C	10,000
	TOTAL	300,000

TRACKING PADS

CATEGORY	STAGE	LOCATION	628.7560 TRACKING PADS EACH
1000	1	IH 94	1
	2	IH 94	1
	4	IH 94	1
		UNDISTRIBUTED	3
		TOTAL	6

ADJUSTING MANHOLE COVERS

CATEGORY	ROADWAY	611.8110 ADJUSTING MANHOLE COVERS EACH
1000		
	UNDISTRIBUTED	2
	TOTAL	2

3

BEAM GUARD ITEMS

CATEGORY	ROADWAY	LOCATION	OFFSET	614.0395 GUARDRAIL MOW STRIP CONCRETE SY	614.0800* CRASH CUSHIONS PERMANENT EACH	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	614.2620 MGS GUARDRAIL TERMINAL TYPE 2 EACH
1000	IH 94								
		819+18 - 830+74	98'RT	--	--	1,356	--	2	--
		819+88 - 829+13	103'LT	--	--	1,130	--	2	--
		836+30 - 838+40	83'RT	82	--	197	--	1	1
		871+45 - 872+38	75'LT	40	--	25	21	1	--
		884+46 - 886+42	83'LT	82	--	197	--	1	1
		892+07 - 893+00	73'RT	37	--	25	21	1	--
	RAMP NW								
		868+95 - 869+88	24'RT	40	--	25	21	1	--
	RAMP SW								
		847+00 - 847+98	10'LT	38	--	25	21	1	--
	RAMP SE								
		850+13	75'RT	--	1	--	--	--	--
	CTH C								
		65+65 - 65+82	30'RT	7	--	13	7	--	--
		65+93 - 66+18	45'LT	22	--	100	7	--	--
		68+93 - 69+13	30'LT	8	--	13	7	--	--
		68+65 - 69+12	30'RT	18	--	13	7	--	--
TOTALS				374	1	3,119	112	10	2

* IH 94/RAMP SE: 90-INCH CONCRETE BACKUP UNIDIRECTIONAL, DESIGN SPEED = 70 MPH

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\030201.ppt PLOT DATE : 11/25/2013 11:41:24 AM PLOT BY : MSCD1S PLOT NAME : 030201_mq13 PLOT SCALE : 1:1

MOBILIZATION

CATEGORY	STAGE		619.1000 EACH
1000	ALL	PROJECT	1
	TOTAL		1

LANDMARK REFERENCE MONUMENTS

CATEGORY		STATION	DESCRIPTION	621.0100 EACH
1000	IH 94			
		834+61.20	PC	1
		839+47.69	PI	1
		844+34.17	PT	1
		863+23.06	PC	1
		867+54.65	PI	1
		871+86.24	PT	1
		885+49.62	PC	1
		889+89.14	PI	1
		894+28.65	PC	1
	TOTAL			9

SAW CUTTING ITEMS

CATEGORY	ROADWAY	FROM STATION		TO STATION	OFFSET	690.0250 SAWING CONCRETE LF	REMARKS
1000							
	IH 94						
		810+00	-	822+00		2,452	MEDIAN
		817+93	-	822+00	RT	506	WIDENING
		819+93	-	822+00	LT	206	WIDENING
		822+00	-	822+00		118	
		901+35	-	901+35		118	
		901+35	-	902+91	LT	156	WIDENING
		901+35	-	906+41	RT	506	WIDENING
		901+35	-	913+35		2,452	MEDIAN
	RAMP SE						
		858+05	-	858+05		32	
	RAMP NE						
		864+55	-	864+55		23	
	RAMP SW						
		860+38	-	860+38		26	
	RAMP NW						
		864+10	-	864+10		32	
						6,627	

WATER ITEMS

CATEGORY	ROADWAY	624.0100 WATER MGAL
1000	IH 94	1,318
	RAMP NW	78
	RAMP SW	83
	RAMP SE	77
	RAMP NE	85
	CTH C	2
	TOTALS	1643

FIELD OFFICE FIXED

CATEGORY	STAGE		SPV.0105.0001 LS
1000	ALL	PROJECT	1
	TOTAL		1

REMOVING PAVEMENT MARKINGS

CATEGORY	STAGE	LOCATION	646.0600 REMOVING PAVEMENT MARKINGS LF	SPV.0090.0030 REMOVING PAVEMENT MARKINGS WATER BLASTING LF
1000	1	IH 94	--	--
	2A	IH 94	38,894	--
	2B	IH 94	1,470	--
	3	IH 94	--	--
	4A	IH 94	--	42,691
	4B	IH 94	--	1,465
	TOTAL		40,364	44,156

TRAFFIC CONTROL LOCAL ROAD

CATEGORY	ROADWAY	SPV. 0060.0003 TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES EACH
1000	VARIOUS	25
	TOTALS	25

TRAFFIC CONTROL ITEMS

LOCATION	STAGE DURATION DAYS	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	643.0300 TRAFFIC CONTROL DRUMS EACH*	643.0300 DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH*	643.0420 DAY	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH*	643.0705 DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH*	643.0715 DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH*	643.0800 DAY	643.0900 TRAFFIC CONTROL SIGNS EACH*	643.0900 DAY	643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH*	643.3000 DAY	643.1050 TRAFFIC CONTROL PCMS EACH*	643.1050 DAY	SPV.0045.0002 PCMS REMOTE COMMUNICATIONS DAY
STAGE 1A	30																					
IH 94 NB		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
IH 94 SB		13,616	13,616	33	990	--	--	--	--	--	--	14	420	2	60	17	510	--	--	--	--	--
RAMP NW		--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	60	--	--	--	--	--
RAMP SW		--	--	25	750	--	--	--	--	--	--	--	--	--	--	1	30	--	--	--	--	--
RAMP SE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RAMP NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
STAGE 1A SUBTOTAL		13,616	13,616		1,740		0	0	0		0		420		60		600		0		0	0
STAGE1B	10																					
IH 94 NB		--	--	38	380	--	--	--	--	--	--	14	140	2	20	20	200	--	--	--	--	--
IH 94 SB		3,000	10,686	37	370	--	--	--	--	--	--	14	140	2	20	20	200	--	--	--	--	--
RAMP NW		10,686	10,686	--	--	--	--	--	--	--	--	--	--	--	--	2	20	--	--	--	--	--
RAMP SW		--	--	18	180	--	--	--	--	--	--	--	--	--	--	2	20	--	--	--	--	--
RAMP SE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
RAMP NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	20	--	--	--	--	--
EAST FRONTAGE ROAD		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
WEST FRONTAGE ROAD		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
STAGE 1B SUBTOTAL		13,686	21,372		930		0	0	0		0		280		40		460		0		0	0
STAGE 2A	100																					
CTH C		--	--	--	--	28	2,800	--	--	56	5,600	--	--	--	--	12	1,200	--	--	--	--	--
IH 94 NB		--	4,196	13	1,300	--	--	--	--	--	--	--	--	2	200	27	2,700	--	--	--	--	--
IH 94 SB		--	7,412	81	8,100	--	--	--	--	--	--	22	2,200	2	200	26	2,600	--	--	--	--	--
RAMP NW		--	--	9	900	--	--	--	--	--	--	2	200	--	--	2	200	--	--	--	--	--
RAMP SW		--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	200	--	--	--	--	--
RAMP SE		--	--	24	2,400	3	300	--	--	6	600	--	--	--	--	--	--	--	--	--	--	--
RAMP NE		--	--	78	7,800	4	400	--	--	8	800	3	300	--	--	2	200	--	--	--	--	--
EAST FRONTAGE ROAD		--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	200	--	--	--	--	--
WEST FRONTAGE ROAD		--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	200	--	--	--	--	--
STH 20		--	594	16	1,600	2	200	--	--	4	400	--	--	--	--	8	800	--	--	--	--	--
DETOUR PLAN NB EXIT		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	24	2,400	--	--	--
DETOUR PLAN NB ENT		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	42	4,200	--	--	--
DETOUR PLAN STH 20		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	84	8,400	--	--	--
DETOUR EB FULL CLOSURE	2	--	--	94	188	7	14	--	--	--	--	14	28	3	6	14	28	26	52	1	2	2
CTH K ENTR RAMP		--	--	15	30	3	6	--	--	--	--	6	12	--	--	--	--	--	--	--	--	--
DETOUR WB FULL CLOSURE	2	--	--	96	192	7	14	--	--	--	--	14	28	3	6	14	28	30	60	1	2	2
STH 11 ENTR RAMP		--	--	15	30	3	6	--	--	--	--	6	12	--	--	--	--	--	--	--	--	--
STAGE 2A SUBTOTAL		0	12,202		22,540		3,720	0	0		7,400		2,780		412		8,356		15,112		4	4

* FOR INFORMATION ONLY
ALL ITEMS ARE CATEGORY 1000

(CONTINUED ON NEXT SHEET)

TRAFFIC CONTROL ITEMS

(CONTINUED FROM PREVIOUS SHEET)

LOCATION	STAGE DURATION DAYS	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	643.0300 TRAFFIC CONTROL DRUMS EACH*	643.0300 DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH*	643.0420 DAY	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH*	643.0705 DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH*	643.0715 DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH*	643.0800 DAY	643.0900 TRAFFIC CONTROL SIGNS EACH*	643.0900 DAY	643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH*	643.3000 DAY	643.1050 TRAFFIC CONTROL PCMS EACH*	643.1050 DAY	SPV.0045.0002 PCMS REMOTE COMMUNICATIONS DAY
STAGE 2B	74																					
CTH C		--	--	--	--	16	1,184	--	--	32	2,368	--	--	--	--	6	444	--	--	--	--	--
IH 94 NB		503	503	13	962	30	2,220	--	--	60	4,440	--	--	2	148	30	2,220	--	--	--	--	--
IH 94 SB		--	--	81	5,994	--	--	--	--	--	--	22	1,628	2	148	25	1,850	--	--	--	--	--
RAMP NW		--	--	9	666	--	--	--	--	--	--	2	148	--	--	2	148	--	--	--	--	--
RAMP SW		--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	222	--	--	--	--	--
RAMP SE		1,529	1,529	24	1,776	--	--	--	--	--	--	--	--	--	--	4	296	--	--	--	--	--
RAMP NE		495	495	78	5,772	--	--	--	--	--	--	3	222	--	--	3	222	--	--	--	--	--
EAST FRONTAGE ROAD		--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	148	--	--	--	--	--
WEST FRONTAGE ROAD		--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	148	--	--	--	--	--
STH 20		--	617	63	4,662	4	296	--	--	8	592	11	814	1	74	--	--	--	--	--	--	--
DETOUR PLAN EAST FRONTAGE ROAD		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	110	8,140	--	--	--
STAGE 2B SUBTOTAL		2,527	3,144		19,832		3,700	0	0		7,400		2,812		370		5,698		8,140		0	0
STAGE 3	152																					
IH 94 NB		--	729	--	--	4	608	--	--	8	1,216	--	--	--	--	4	608	--	--	--	--	--
IH 94 SB		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
STAGE 3 SUBTOTAL		0	729		0		608	0	0		1,216		0		--		608		0		0	0
STAGE 4A	100																					
IH 94 NB		10,616	10,616	36	3,600	--	--	--	--	--	--	23	2,300	2	200	27	2,700	--	--	--	--	--
IH 94 SB		4,697	4,697	35	3,500	--	--	--	--	--	--	14	1,400	2	200	27	2,700	--	--	--	--	--
RAMP NW		--	--	89	8,900	--	--	--	--	--	--	21	2,100	--	--	2	200	--	--	--	--	--
RAMP SW		--	--	84	8,400	--	--	--	--	--	--	--	--	--	--	2	200	--	--	--	--	--
RAMP SE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	100	--	--	--	--	--
RAMP NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	300	--	--	--	--	--
STH 20		1,098	--	14	1,400	9	900	--	--	18	1,800	--	--	--	--	8	800	--	--	--	--	--
DETOUR PLAN SB EXIT		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	27	2,700	--	--	--
DETOUR PLAN SB ENT		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	62	6,200	--	--	--
DETOUR PLAN STH 20		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	84	8,400	--	--	--
STAGE 4A SUBTOTAL		16,411	15,313		25,800		900	0	0		1,800		5,800		400		7,000		17,300		0	0
STAGE 4B	53																					
IH 94 NB		--	--	36	1,908	--	--	--	--	--	--	23	1,219	2	106	27	1,431	--	--	--	--	--
IH 94 SB		--	3,057	36	1,908	9	477	--	--	18	954	14	742	2	106	32	1,696	--	--	--	--	--
STH 20		--	--	63	3,339	4	212	--	--	8	424	11	583	--	--	12		--	--	--	--	--
RAMP NW		--	--	38	2,014	--	--	--	--	--	--	--	--	--	--	2	106	--	--	--	--	--
RAMP SW		--	--	55	2,915	--	--	--	--	--	--	--	--	--	--	2	106	--	--	--	--	--
STAGE 4B SUBTOTAL		0	3,057		12,084		689	0	0		1,378		2,544		212		3,339		0		--	--
UNDISTRIBUTED		4,624	6,943		8,293		962	50	50		1,919		1,464		149		2,606		4,055		734	734
TOTALS		50,864	76,376		91,219		10,579	50	50		21,113		16,100		1,643		28,667		44,607		738	738

* FOR INFORMATION ONLY
ALL ITEMS ARE CATEGORY 1000

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	STAGE DURATION DAYS	646.0106* PAVEMENT MARKING EPOXY 4-INCH DASHED WHITE[1] LF	646.0106* PAVEMENT MARKING EPOXY 4-INCH DOT WHITE[2] LF	646.0106* PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0106* PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	646.0126* PAVEMENT MARKING EPOXY 8-INCH DOT WHITE[2] LF	646.0126* PAVEMENT MARKING EPOXY 8-INCH WHITE LF	646.0103 PAVEMENT MARKING PAINT 4-INCH YELLOW LF	646.0103 PAVEMENT MARKING PAINT 4-INCH WHITE LF	646.0103 PAVEMENT MARKING PAINT 4-INCH WHITE 12.5 FT LINE 37.5 FT SKIP LF	646.0123 PAVEMENT MARKING PAINT 8-INCH WHITE LF	646.0123 PAVEMENT MARKING PAINT 8-INCH WHITE 3 FT LINE 9 FT SKIP LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH YELLOW LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH WHITE LF	649.2100 TEMPORARY RAISED PAVEMENT MARKERS EACH
1000	STAGE 1A	30														
	IH 94 SB		--	--	--	--	--	--	--	9,900	--	--	--	--	--	--
	STAGE 1A SUBTOTAL		0	0	0	0	0	0	0	9,900	0	0	0	0	0	0
	STAGE 1B	10														
	IH 94 NB		--	--	--	--	--	--	12,920	--	--	--	--	--	--	--
	IH 94 SB		--	--	--	--	--	--	12,920	13,096	3,349	--	--	--	--	--
	STAGE 1B SUBTOTAL		0	0	0	0	0	0	25,840	13,096	3,349	0	0	0	0	0
	STAGE 2A	100														
	IH 94 NB		--	--	--	--	--	--	12,434	14,834	2,677	200	--	--	--	97
	IH 94 SB		--	--	--	--	--	--	11,521	11,722	3,037	200	--	--	--	--
	RAMP NW		--	--	--	--	--	--	364	66	--	100	--	--	--	--
	RAMP SW		--	--	--	--	--	--	--	200	--	100	--	--	--	--
	RAMP SE		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	RAMP NE		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	STH 20		--	--	--	--	--	--	--	--	--	--	--	1,032	368	--
	STAGE 2A SUBTOTAL		0	0	0	0	0	0	24,319	26,822	5,714	600	0	1,032	368	97
1000	STAGE 2B	74														
	IH 94 NB		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	IH 94 SB		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	RAMP NW		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	RAMP SW		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	RAMP SE		--	--	--	--	--	--	1,237	1,790	150	100	--	--	--	--
	RAMP NE		--	--	--	--	--	--	1,544	2,103	--	100	--	--	--	--
	STH 20		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	STAGE 2B SUBTOTAL		0	0	0	0	0	0	2,781	3,893	150	200	0	0	0	0
	STAGE 3	152														
	IH 94 NB		6,217	--	10,952	12,434	176	798	--	--	--	--	--	--	--	--
	IH 94 SB		5,761	--	11,522	8,874	63	1,273	--	--	--	--	--	--	--	--
	RAMP NW		--	--	704	--	--	189	--	--	--	--	--	--	--	--
	RAMP SW		--	--	1,777	--	--	904	--	--	--	--	--	--	--	--
	RAMP SE		97	--	1,560	537	--	800	--	--	--	--	--	--	--	--
	RAMP NE		114	--	2,734	936	--	1,343	--	--	--	--	--	--	--	--
	STH 20		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	STAGE 3 SUBTOTAL		12,189	0	29,249	22,781	239	5,307	0	0	0	0	0	0	0	0

(CONTINUED ON NEXT SHEET)

(CONTINUED FROM PREVIOUS SHEET)

TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	STAGE DURATION DAYS	646.0106* PAVEMENT MARKING EPOXY 4-INCH DASHED WHITE[1] LF	646.0106* PAVEMENT MARKING EPOXY 4-INCH DOT WHITE[2] LF	646.0106* PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0106* PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	646.0126* PAVEMENT MARKING EPOXY 8-INCH DOT WHITE[2] LF	646.0126* PAVEMENT MARKING EPOXY 8-INCH WHITE LF	646.0103 PAVEMENT MARKING PAINT 4-INCH YELLOW LF	646.0103 PAVEMENT MARKING PAINT 4-INCH WHITE LF	646.0103 PAVEMENT MARKING PAINT 4-INCH WHITE 12.5 FT LINE 37.5 FT SKIP LF	646.0123 PAVEMENT MARKING PAINT 8-INCH WHITE LF	646.0123 PAVEMENT MARKING PAINT 8-INCH WHITE 3 FT LINE 9 FT SKIP LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH YELLOW LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH WHITE LF	649.2100 TEMPORARY RAISED PAVEMENT MARKERS EACH
1000	STAGE 4A	100														
	IH 94 NB		--	--	--	--	--	--	11,972	13,793	2,501	200	35	--	--	243
	IH 94 SB		--	--	--	--	--	--	12,681	15,443	2,624	200	--	--	--	332
	RAMP NW		--	--	--	--	--	--	--	--	--	100	--	--	--	--
	RAMP SW		--	--	--	--	--	--	--	--	--	100	--	--	--	--
	RAMP SE		--	--	--	--	--	--	--	721	--	100	--	--	--	--
	RAMP NE		--	--	--	--	--	--	--	410	--	100	--	--	--	--
	STH 20		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	STAGE 4A SUBTOTAL		0	0	0	0	0	0	24,653	30,367	5,125	800	35	0	0	575
1000	STAGE 4B	53														
	IH 94 NB		--	--	--	--	--	--	--	--	--	--	--	--	--	--
	IH 94 SB		--	--	--	--	--	--	--	--	--	200	--	--	--	--
	RAMP NW		--	--	--	--	--	--	692	2,730	--	100	--	--	--	--
	RAMP SW		--	--	--	--	--	--	498	2,423	--	100	--	--	--	--
	RAMP SE		--	--	--	--	--	--	747	1,260	150	432	--	--	--	--
	RAMP NE		--	--	--	--	--	--	1,170	1,798	--	100	--	--	--	--
	STH 20		--	--	--	--	--	--	--	--	--	--	--	781	748	--
	STAGE 4B SUBTOTAL		0	0	0	0	0	0	3,107	8,211	150	932	0	781	748	0
	TOTALS		64,219				5,546		187,477			2,567		2,929		672

*ADDITIONAL ITEMS SHOWN ELSEWHERE IN PLAN, SEE "PAVMENT MARKING ITEMS"

3

TRAFFIC CONTROL 1033-02-72

CATEGORY	STAGE	LOCATION	643.0200.0001 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (1033-02-72) DAY	643.2000.0001 TRAFFIC CONTROL DETOUR (1033-02-72) EACH
1000	ALL	PROJECT	580	1
	TOTAL		580	1

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	STAGE	SIGN NO.	SIGN SIZE W X H FT X FT	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF
1000	STAGE 2A	10	2.5 X 2.5	6.25
		11	10.5 X 4	42
		12	10 X 2	20
		13	10 X 2	20
		14	10 X 2	20
		15	10 X 2	20
		16	10 X 2	20
		17	10 X 2	20
		18	10 X 2	20
		19	11 X 7	77
		20	10 X 2	20
		21	10 X 2	20
		22	10 X 2	20
	STAGE 2A SUBTOTAL			325.25
	STAGE 4A	30	10 X 2	20
		31	10 X 2	20
		32	11 X 7	77
		33	10 X 2	20
		34	10 X 2	20
		35	10 X 2	20
		36	10 X 2	20
		37	10 X 2	20
		38	10 X 2	20
		39	10 X 2	20
		40	10.5 X 4	42
		41	10 X 2	20
		42	10 X 2	20
		43	10 X 2	20
		44	2.5 X 2.5	6.25
	STAGE 2A SUBTOTAL			365.25
TOTALS				690.5

TEMPORARY CRASH CUSHION

CATEGORY	LOCATION	STA	CRASH TEST CONDITION	OBJECT MARKING PATTERN	WIDTH REQUIREMENT	614.0905 CRASH CUSHIONS TEMPORARY EACH
1000						
	STAGE 1A					
	IH 94	843+54	TL-3	OM-3C	2'	2
	IH 94	878+50	TL-3	OM-3C	2'	1
	IH 94	879+56	TL-3	OM-3C	2'	1
	IH 94	905+55	TL-3	OM-3C	2'	1
STAGE 1A SUBTOTAL						5
	STAGE 1B					
	IH 94	845+80	TL-3	OM-3C	2'	1
	IH 94	901+35	TL-3	OM-3C	2'	1
STAGE 1B SUBTOTAL						2
	STAGE 2A					
	IH 94	798+23	TL-3	OM-3C	2'	1
	IH 94	846+30	TL-3	OM-3C	2'	1
	IH 94	878+36	TL-3	OM-3C	2'	1
	IH 94	914+16	TL-3	OM-3C	2'	1
STAGE 2A SUBTOTAL						4
	STAGE 2B					
	IH 94	846+25	TL-3	OM-3C	2'	1
	IH 94	881+30	TL-3	OM-3C	2'	1
	STH 20	293+52	TL-3	OM-3C	2'	1
	STH 20	295+64	TL-3	OM-3C	2'	1
	STH 20	292+92	TL-3	OM-3C	2'	1
	STH 20	295+41	TL-3	OM-3C	2'	1
STAGE 2B SUBTOTAL						6
	STAGE 4A					
	IH 94	920+29	TL-3	OM-3C	2'	1
STAGE 4A SUBTOTAL						1
	STAGE 4B					
	IH 94	846+50	TL-3	OM-3C	2'	1
	IH 94	878+08	TL-3	OM-3C	2'	1
	STH 20	293+52	TL-3	OM-3C	2'	1
	STH 20	295+64	TL-3	OM-3C	2'	1
	STH 20	292+92	TL-3	OM-3C	2'	1
	STH 20	295+41	TL-3	OM-3C	2'	1
STAGE 4B SUBTOTAL						1
	UNDISTRIBUTED					3
TOTALS						22

3

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GLARE SCREENS TEMPORARY

CATEGORY	STAGE	LOCATION	STATION	TO	STATION	SPV.0090.0002 LF
1000	2A	MEDIAN	806+00	-	914+00	10,800
	4A	MEDIAN	805+00	-	911+13	10,613
		TOTAL				21,413

TRAFFIC CONTROL COVERING SIGNS

CATEGORY	DETOUR PLAN	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH
1000	STAGE 2A	4	--
	STAGE 4A	5	--
	SUBTOTAL	9	--
	UNDISTRIBUTED	1	15
	TOTALS	19	15

PAVEMENT REPAIR

CATEGORY	STAGE	ROADWAY	STA	TO	STA	SPV.0060.0016 MOBILIZATION EMERGENCY PAVEMENT REPAIR EACH	SPV.0180.0007 CONCRETE PAVEMENT REPAIR SPECIAL SY	SPV.0195.0003 ASPHALTIC PAVEMENT REPAIR SPECIAL TON	SPV.0195.0004 HMA LONGITUDINAL JOINT REPAIR TON
1000	1A	IH 94 NB	829+00	-	895+00	1	740	--	--
	1B	IH 94 NB	829+00	-	895+00	1	880	--	--
	2	IH 94 NB	829+00	-	895+00	1	--	337	843
	3	IH 94 NB/SB	829+00	-	895+00	--	--	--	--
	4	IH 94 SB	829+00	-	895+00	1	--	337	843
			TOTALS (I.D. 1033-02-72)			4	1,620	674	1,686

3

EROSION CONTROL ITEMS

CATEGORY	LOCATION	606.0200 RIPRAP MEDIUM CY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2004 EROSION MAT CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	628.7005 INLET PROTECT TYPE A EACH	628.7010 INLET PROTECT TYPE B EACH	628.7015 INLET PROTECT TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	631.1100 SOD EROSION CONTROL SY	645.0120 GEOTEXTILE FABIC TYPE HR SY	SPV.0060.0009 EROSION CONTROL FILTER BAGS EACH	628.7570 ROCK BAGS EACH	SPV.0060.0030 SILT FENCE DRAINAGE OUTLET EROSION CONTROL FILTER BAGS EACH
1000	STAGE 1																	
	IH 94 SB	--	7,690	3,845	--	--	--	--	--	29	--	--	--	--	--	4	4	--
	RAMP SE	--	472	236	--	--	--	--	--	--	--	--	--	--	--	2	2	--
	RAMP NE	--	998	499	--	--	--	--	--	--	--	--	--	--	--	2	2	--
	UNDISTRIBUTED	--	916	458	1	1	--	--	--	--	--	--	--	--	--	2	12	10
	STAGE 1 SUBTOTAL	0	10,076	5,038	1	1	0	0	0	29	0	0	0	0	0	10	20	10
	STAGE 2																	
	IH 94 NB	35	1,895	948	--	--	5,523	0	41	--	41	11	--	--	105	4	4	--
	IH 94 SB	--	--	0	--	--	--	6,221	--	19	--	--	--	--	--	4	4	--
	RAMP NW	--	--	0	--	--	--	--	--	--	--	--	--	--	--	2	2	--
	RAMP SW	--	--	0	--	--	--	--	--	--	--	--	--	--	--	2	2	--
	RAMP SE	--	--	0	--	--	--	--	--	--	--	--	--	--	--	2	2	--
	RAMP NE	7	--	0	--	--	33	2,226	--	--	--	84	1	--	21	2	2	--
	UNDISTRIBUTED	4	190	95	1	1	556	223	--	--	--	10	--	100	12	4	14	10
	STAGE 2 SUBTOTAL	46	2,085	1,043	1	1	6,112	8,670	41	19	41	105	1	100	138	20	30	10
	STAGE 4																	
	IH 94 SB	4	--	--	--	--	2,014	--	41	--	41	56	2	--	12	4	4	--
	RAMP NW	--	--	--	--	--	22	3,035	--	--	--	73	1	--	--	2	2	--
	RAMP SW	4	--	--	--	--	--	1,106	3	--	2	--	2	--	12	2	2	--
	RAMP SE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	2	--
	RAMP NE	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	2	--
	UNDISTRIBUTED	1	--	--	1	1	204	414	--	--	--	13	--	50	3	3	13	10
	STAGE 4 SUBTOTAL	9	0	0	1	1	2,240	4,555	44	0	43	142	5	50	27	15	25	10
	TOTALS	55	12,161	6,081	3	3	8,352	13,225	85	48	84	247	6	150	165	45	75	30

VIBRATION MONITORING

CATEGORY	STAGE	LOCATION	SPV.0060.0052 24-HOUR BASELINE VIBRATION MONITORING EACH	SPV.0060.0053 DAILY VIBRATION MONITORING EACH
1000	ALL	UNDISTRIBUTED	52	26
		TOTALS	52	26

RESTORATION ITEMS

CATEGORY	ROADWAY	STATION		STATION	SPV.0180.0008 TOPSOIL SPECIAL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB
1000	IH 94 NB	816+91	-	906+41	36,421	36,421	51	2,188	1,094
	IH 94 SB	829+00	-	895+00	20,201	20,201	27	1,178	589
	RAMP NW	867+23	-	873+50	9,072	9,072	12	530	265
	RAMP SW	852+16	-	861+41	6,571	6,571	9	388	194
	RAMP SE	850+50	-	855+90	1,192	1,192	2	87	44
	RAMP NE	866+95	-	876+50	17,610	17,610	24	1,023	512
	CTH C	65+95	-	68+75	626	626	1	34	17
	UNDISTRIBUTED				9,169	9,169	13	543	272
	TOTALS				100,862	100,862	139	5,971	2,987

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BASELINE CPM PROGRESS SCHEDULE

CATEGORY	PROJECT	SPV.0060.0070 EACH
1000	1033-02-72	1.0
	TOTAL	1.0

CPM PROGRESS SCHEDULE UPDATES AND ACCEPTED REVISIONS

CATEGORY	PROJECT	SPV.0060.0071 EACH
1000	1033-02-72	50
	TOTAL	50

3

EXPOSING EXISTING UTILITY

CATEGORY	LOCATION	SPV.0060.0002 EXPOSING EXISTING UTILITY PAVED AREA EACH	SPV.0060.0004 EXPOSING EXISTING UTILITY UNPAVED AREA EACH
1000	UNDISTRIBUTED	40	40
	TOTAL	40	40

PAVEMENT CLEANUP

CATEGORY	LOCATION	SPV.0105.0005 PAVEMENT CLEANUP 1033-02-72 LS
1000	PROJECT	1
	TOTALS	1

SURVEY PROJECT

CATEGORY	LOCATION	SPV.0105.0051 SURVEY PROJECT 1033-02-72 LS
1000	PROJECT	1
	TOTALS	1

TEMPORARY SETTLING BASIN

CATEGORY	ROADWAY	628.1104* EROSION BALES EACH	SPV.0180.0002 GEOTEXTILE FABRIC TYPE FF SY
1000	IH 94 NB MAINLINE UNDISTRIBUTED	30	100
	IH 94 SB MAINLINE UNDISTRIBUTED	30	100
	TOTAL (I.D. 1033-02-72)	60	200

GEOGRID REINFORCEMENT

CATEGORY	LOCATION	311.0110 BREAKER RUN TON	SPV.0180.0001 GEOGRID REINFORCEMENT SY	COMMENTS
1000	UNDISTRIBUTED	2,200	4,000	12" BREAKER RUN DEPTH
	TOTAL	2,200	4,000	

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PAVEMENT MARKING ITEMS

LOCATION	START		END	633.0100 DELINEATOR POSTS STEEL EACH	633.0500 DELINEATOR REFLECTORS YELLOW EACH	633.0500 DELINEATOR REFLECTORS WHITE EACH	646.0106* PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	646.0106* PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0841.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH LF	646.0843.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH LF	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2 EACH	647.0356 PAVEMENT MARKING WORDS EPOXY EACH	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH LF	647.0576 PAVEMENT MARKING STOP LINE EPOXY 24-INCH LF	647.0746 PAVEMENT MARKING DIAGONAL EPOXY 24-INCH WHITE LF
IH 94															
NB	829+00	-	895+00	17	--	29	11970	10618	6206	2724	--	--	--	--	525
SB	829+00	-	895+00	9	--	15	9000	7395	6224	3348	--	--	--	--	342
RAMP SE															
	841+75	-	855+90	15	1	23	544	1,512	--	--	3	1	--	53	--
RAMP SW															
	846+86	-	861+41	17	2	21	645	1,455	--	--	--	--	--	--	--
RAMP NE															
	866+95	-	881+10	16	2	18	934	1,525	--	--	--	--	--	--	--
RAMP NW															
	867+23	-	881+00	17	4	20	582	1,492	--	--	3	1	--	31	--
CTH C															
	65+95	-	58+75	--	--	--	458	510	--	--	--	--	20	--	--
UNDISTRIBUTED				--	--	--	10	5	--	--	--	--	--	--	--
TOTALS				91	135		48,655		12430	6072	6	2	20	84	867

ALL ITEMS ARE CATEGORY 1000

*ADDITIONAL ITEMS SHOWN ELSEWHERE IN PLAN, SEE "TRAFFIC CONTROL ITEMS"

PERMANENT SIGNING SUMMARY

CATEGORY	SIGN #	SIGN CODE	SIGN SIZE	SIGN SIZE INCHES	637.2210* SIGNS TYPE II REFLECTIVE H SF	634.0614 POSTS WOOD 4X6-INCH X 14 FEET EACH	634.0616 POSTS WOOD 4X6-INCH X 16 FEET EACH	634.0618* POSTS WOOD 4X6-INCH X 18 FEET EACH	SIGN MOUNTED ON SAME POST AS #	REMARKS
	2-01	W3-3	2	36X36	9.00	--	1	--	--	TRAFFIC SIGNAL AHEAD
1000	2-02	J33-1	2	--	--	--	1	--	--	ROUTE ASSEMBLY
		MB4-1	2	24X12	2.00	--	--	--	--	ALT
		MB3-4	2	24X12	2.00	--	--	--	--	WEST
		M1-1	2	24X24	4.00	--	--	--	--	IH ROUTE MARKER
		MB6-1	2	21X21	3.06	--	--	--	--	DIRECTIONAL ARROW
		J13-2	2	--	--	--	1	--	--	JUNCTION ASSEMBLY
		MB3-4	2	24X12	2.00	--	--	--	--	WEST
		M1-6	2	24X24	4.00	--	--	--	--	STATE ROUTE ASSEMBLY
		M5-1L	2	21X21	3.06	--	--	--	--	LEFT TURN ARROW
		MB3-2	2	24X12	2.00	--	--	--	--	EAST
		M1-6	2	24X24	4.00	--	--	--	--	STATE ROUTE ASSEMBLY
		M5-1R	2	21X21	3.06	--	--	--	--	RIGHT TURN ARROW
	2-03	R7-64	2	48X30	10.00	2	--	--	--	NO PARKING ON RAMP
	2-04	D1-1	2	60X24	10.00	--	2	--	--	DESTINATION SIGN
	2-06	D7-59L	2	54X36	13.50	--	2	--	--	TOURIST INFORMATION ARROW
	3-03	W4-2R	2	36X36	9.00	--	1	--	--	RIGHT LANE ENDS
	3-04	R7-64	2	48x30	10.00	2	--	--	--	NO PARKING ON RAMP
	3-05	D4-2L	2	36X48	12.00	--	1	--	--	PARK & RIDE
	3-06	D1-2	2	84x42	24.50	--	2	--	--	DESTINATION SIGN
	3-07	D4-2R	2	36X48	12.00	--	1	--	--	PARK & RIDE
	3-10	R7-64	2	48X30	10.00	2	--	--	--	NO PARKING ON RAMP
	3-11	R7-1D	2	18X24	3.00	1	--	--	--	NO PARKING ANY TIME
	3-12	D1-2	2	84x42	24.50	--	2	--	--	DESTINATION SIGN
	4-01		2	36X36	9.00	--	--	2	4-02	CRASH INVESTIGATION SITE
	4-02	D1-1	2	84X24	14.00	--	--	--	4-01	DESTINATION SIGN
	4-03	W4-2R	2	36X36	9.00	--	1	--	--	RIGHT LANE ENDS
	4-04	R7-64	2	48X30	10.00	2	--	--	--	NO PARKING ON RAMP
	4-05	J33-1	2	--	--	--	1	--	--	ROUTE ASSEMBLY
		MB4-1	2	24X12	2.00	--	--	--	--	ALT
		MB3-2	2	24X12	2.00	--	--	--	--	EAST
		M1-1	2	24X24	4.00	--	--	--	--	IH ROUTE MARKER
		MB6-1	2	21X21	3.06	--	--	--	--	DIRECTIONAL ARROW
		J13-2	2	--	--	--	1	--	--	JUNCTION ASSEMBLY
		MB3-2	2	24X12	2.00	--	--	--	--	EAST
		M1-6	2	24X24	4.00	--	--	--	--	STATE ROUTE ASSEMBLY
		M5-1L	2	21X21	3.06	--	--	--	--	LEFT TURN ARROW
		MB3-4	2	24X12	2.00	--	--	--	--	WEST
		M1-6	2	24X24	4.00	--	--	--	--	STATE ROUTE ASSEMBLY
		M5-1R	2	21X21	3.06	--	--	--	--	RIGHT TURN ARROW
	4-06	W3-3	2	36X36	9.00	--	1	--	--	TRAFFIC SIGNAL AHEAD
	6-01	R1-1	2	36X36	9.00	1	--	--	--	STOP
		R1-4	2	18x6	0.75	--	--	--	6-01	ALL WAY
	6-02	R1-1	2	36X36	9.00	1	--	--	--	STOP
		R1-4	2	18x6	0.75	--	--	--	6-02	ALL WAY
	6-03	R1-1	2	36X36	9.00	1	--	--	--	STOP
		R1-4	2	18x6	0.75	--	--	--	6-03	ALL WAY
	6-04	R1-1	2	36X36	9.00	1	--	--	--	STOP
		R1-4	2	18x6	0.75	--	--	--	6-04	ALL WAY
TOTALS					256.86 *	13	18	2 *		

*ADDITIONAL ITEMS SHOWN ELSEWHERE IN PLAN, SEE "TYPE I & II PERMANENT SIGNING"

SIGN REMOVAL SUMMARY

CATEGORY	SIGN #	638.2602* REMOVING SIGNS TYPE II EACH	638.3000* REMOVING SMALL SIGN SUPPORTS EACH	638.2102* MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS #	REMARKS
1000	1R01	1	1	--	--	--	NO PARKING
	1R02	1	1	--	--	--	NO PARKING
	1R03	1	1	--	--	--	NO PARKING
	1R04	1	1	--	--	--	ONE-DIRECTION LARGE ARROW
	1R05	1	1	--	--	--	NO PARKING
	1R06	1	1	--	--	--	NO PARKING
	2R01	1	1	--	--	--	NO PARKING
	2R02	1	1	--	--	--	NO PARKING
	2R03	1	1	--	--	--	NO PARKING
	2R04	1	1	--	--	--	NO PARKING
	2R05	1	1	--	--	--	NO PARKING
	2R06	1	1	--	--	--	NO PARKING
	2R07	1	1	--	--	--	JUNCTION ASSEMBLY
	2R08	1	1	--	--	--	NO PARKING
	2R09	1	1	--	--	--	NO PARKING
	2R10	1	1	--	--	--	NO PARKING
	2R11	1	1	--	--	--	NO PARKING
	2R12	1	1	--	--	--	TRAFFIC SIGNALS AHEAD
	2R13	1	1	--	--	--	NO PARKING
	2R14	1	2	--	--	--	AMTRAK STATION
	2M01	--	--	1	2	--	TOURIST INFORMATION
	3R01	1	1	--	--	--	NO PARKING
	3R02	1	1	--	--	--	NO PARKING
	3R03	1	1	--	--	--	PARK & RIDE
	3R04	1	1	--	--	--	NO PARKING
	3R05	1	1	--	--	--	NO PARKING
	3R06	1	1	--	--	--	NO PARKING
	3R07	1	1	--	--	--	NO PARKING
	3R08	1	1	--	--	3R10	WRONG WAY
	3R09	1	1	--	--	3R11	WRONG WAY
	3R10	1	--	--	--	3R08	PARK & RIDE
	3R11	1	--	--	--	3R09	LEFT LANE MUST TURN LEFT
	3R12	1	2	--	--	3R13	CRASH INVESTIGATION SITE
	3R13	1	--	--	--	2R12	GATEWAY TECH COLLEGE
	4R01	1	1	--	--	--	NO PARKING
	4R02	1	1	--	--	--	NO PARKING
	4R03	1	1	--	--	--	NO PARKING
	4R04	1	2	--	--	--	DESTINATION SIGN
	4R05	1	1	--	--	--	TRAFFIC SIGNALS AHEAD
	4R07	1	1	--	--	--	JUNCTION ASSEMBLY
	4R08	1	1	--	--	--	NO PARKING
	4R09	--	--	1	1	--	NO PARKING
	5R01	2	1	--	--	--	STOP ALL WAY
	5R02	2	1	--	--	--	STOP ALL WAY
	5R04	2	1	--	--	--	STOP ALL WAY
	5R08	2	1	--	--	--	STOP ALL WAY
TOTALS		48 *	44 *	2 *	3		

*ADDITIONAL ITEMS SHOWN ELSEWHERE IN PLAN, SEE "TYPE I & II PERMANENT SIGNING"

TRAFFIC SIGNALS

CATEGORY	LOCATION	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0800 CONDUIT LOOP DETECTOR LF	653.0135 PULL BOXES STEEL 24X36-INCH EACH	655.0700 LOOP DETECTOR LEAD-IN CABLE LF	655.0800 LOOP DETECTOR WIRE LF	SPV.0105.0002 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE LS	SPV.0105.0003 TRAFFIC SIGNAL MITIGATION FOR CONSTRUCTION STAGING LS
1000	I-94 EB RAMPS & STH 20	75	70	1	500	375	1	1
TOTALS		75	70	1	500	375	1	1

3

3

TEMPORARY STORM SEWER ITEMS

STR NO	STATION	OFFSET FT		SPV.0090.0051 DRAIN SLOTTED VANE LONGITUDINAL LF	608.0324* STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	522.1024* APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	611.8115 ADJUSTING INLET COVERS EACH	NOTES
T250	908+00	3.9	LT	30	--	--	1	CONNECT TO EX INLET FOR XOVER
T251	818+00	8.6	LT	30	--	--	1	CONNECT TO EX INLET FOR XOVER
T252	817+80	77.6	RT	--	8	1	--	EXTEND EXISTING PIPE
TOTALS (I.D. 1133-02-72)				60	8	1	2	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

CROSS CULVERT ITEMS

CAT	ROADWAY	STATION	INLET END OFFSET	INLET END ELEV	INLET END STATION	DISCHARGE END OFFSET	DISCHARGE END ELEV	DISCHARGE END STATION	SLOPE	522.0130* CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	522.1030* APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	633.5200* MARKERS CULVERT END EACH
1000	NE RAMP	869+00	51.0' LT	746.95	869+00	56.0' RT	745.00	869+00	1.82%	107	2	2
TOTALS										107	2	2

NOTES
1) STATION OFFSETS SHOWN ARE TO THE CENTER OF INLET STRUCTURES OR END OF PIPE (NOT THE APRON END OF ENDWALLS).
2) JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL CONCRETE APRON ENDWALLS. PIPE JOINTS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THE JOINT TIES SHALL BE INCIDENTAL TO THE COST OF THE PIPE.
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE - SEE STORM SEWER TABLE
**ALL ITEMS ARE CATEGORY 1000 UNLESS NOTED OTHERWISE

STORM SEWER ITEMS

NOTES
1) JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL CONCRETE APRON ENDWALLS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCIDENTAL TO THE COST OF THE PIPE.
2) STATIONS ARE TO THE CENTER OF STRUCTURES OR TO THE APRON END OF ENDWALLS.
OFFSETS ARE TO THE FLANGE LINE FOR STRUCTURES IN THE ROADWAY WITH INLET GRATES, AND TO THE CENTER OF STRUCTURE FOR FIELD INLETS AND MANHOLES WITH SOLID LIDS.
3) PIPE LENGTHS AND SLOPES ARE MEASURED TO THE CENTER OF STRUCTURE OR THE APRON END OF ENDWALLS (INCLUDES LENGTH OF AEW)
4) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVER FOR MANHOLES
5) STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING HEIGHT - ADJUSTMENT
CASTING HEIGHT = 0.75 FT FOR J COVERS; 0.83 FT FOR TYPE V; 0 FT FOR TYPE MS COVERS
ADJUSTMENT (RINGS) = 0.33 FT FOR V & J COVERS; 0 FT FOR TYPE MS COVERS
6) FLAT TOP SLAB WITH CENTERED 21" X 24" RECTANGULAR OPENING REQUIRED ON ALL MANHOLES WITH TYPE V INLET COVERS
7) FLAT TOP SLAB WITH CENTERED 21" X 24" RECTANGULAR OPENING REQUIRED ON INLETS 3 OR 4-FT DIA WITH TYPE V INLET COVERS
8) FOR FUTURE 34" x 53" CONNECTION TO WEST, CAST IE AT 762.61 AND BULKHEAD

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 1000

STORM SEWER ITEMS

STRUCTURE NUMBER	STATION	OFFSET FT		611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2055 MANHOLES 5x5-FT EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	611.3003 INLETS 3-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0642 INLET COVERS TYPE MS EACH	611.0654 INLET COVERS TYPE V EACH	RIM OR FLANGE ELEV	STR DEPTH FT	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE
IH 94 NB																						
102	829+81	5.25	RT	--	1	--	--	--	--	--	--	--	--	--	1	770.67	3.39	102	102B	766.12	765.76	0.51%
102A	828+00	3.10	LT	--	--	--	--	--	--	1	--	--	--	--	1	770.00	2.53	102A	102B	766.31	765.76	0.50%
102B	829+10	5.25	RT	--	1	--	--	--	--	--	--	--	--	--	1	770.45	3.53	102B	103	765.76	765.27	0.51%
103	829+09	102.00	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	103	OUTFALL	765.27	--	--
106	832+16	5.25	RT	--	--	--	--	--	1	--	--	--	--	--	1	771.40	2.43	106	106A	767.81	767.73	0.50%
106A	832+00	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	771.35	3.21	106A	107	766.98	766.50	0.48%
107	831+99	105.95	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	107	OUTFALL	766.50	--	--
112	834+97	5.25	RT	--	--	--	--	1	--	--	--	--	--	--	1	772.28	8.75	112	113	762.37	762.00	0.26%
112A	835+09	5.25	RT	--	--	--	--	1	--	--	--	--	--	--	1	772.31	8.78	112A	113A	762.37	762.00	0.26%
112B	835+20	5.25	RT	--	--	--	--	1	--	--	--	--	--	--	1	772.34	8.81	112B	113B	762.37	762.00	0.27%
113	835+32	142.14	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	113	OUTFALL	762.00	--	--
113A	835+42	141.02	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	113A	OUTFALL	762.00	--	--
113B	835+52	139.50	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	113B	OUTFALL	762.00	--	--
116	838+16	5.25	RT	--	--	--	--	--	1	--	--	--	--	--	1	773.25	3.50	116	116A	768.59	768.51	0.50%
116A	838+00	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	773.21	4.29	116A	117	767.76	767.16	0.53%
117	838+00	118.75	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	117	OUTFALL	767.16	--	--
120	839+81	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	773.77	6.39	120	120A	766.22	765.61	0.51%
120A	841+00	5.25	RT	--	1	--	--	--	--	--	--	--	--	--	1	774.13	7.36	120A	121	765.61	765.00	0.52%
121	841+00	122.05	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	121	OUTFALL	765.00	--	--
124	844+16	5.25	RT	--	--	--	--	--	1	--	--	--	--	--	1	775.11	3.64	124	124A	770.31	770.23	0.50%
124A	844+00	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	775.06	4.42	124A	125	769.48	768.90	0.51%
125	844+00	119.10	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	125	OUTFALL	768.90	--	--
126	860+43	71.00	RT	--	--	--	--	--	--	1	--	--	--	--	--	788.23	4.06	126	127	783.01	782.66	0.53%
127	860+43	5.25	RT	--	1	--	--	--	--	--	--	--	--	--	1	788.10	4.37	127	133	782.57	780.45	0.64%
132	857+13	71.00	RT	--	--	--	--	--	1	--	--	--	--	--	--	787.21	3.31	132	132A	782.74	782.60	0.50%
132A	856+85	71.00	RT	--	--	--	--	--	--	1	--	--	--	--	--	786.96	3.93	132A	133A	781.87	781.52	0.53%
133	857+11	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	787.13	5.52	133	133A	780.45	780.31	0.64%
133A	856+89	5.25	RT	--	1	--	--	--	--	--	--	--	--	--	1	786.96	5.49	133A	137	780.31	778.00	0.75%
136	853+84	71.00	RT	--	--	--	--	--	--	1	--	--	--	--	--	783.22	3.71	136	137	778.35	778.00	0.53%
137	853+79	5.25	RT	--	1	--	--	--	--	--	--	--	--	--	1	783.10	6.85	137	140	775.09	773.86	0.75%
140	852+18	5.25	RT	--	1	--	--	--	--	--	--	1	--	--	--	780.37	6.47	140	144	772.82	771.32	0.75%
142	850+16	73.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	777.51	4.80	142	144A	771.55	771.20	0.50%
144	850+16	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	777.74	5.26	144	144A	771.32	771.20	0.75%
144A	850+00	5.25	RT	--	--	--	1	--	--	--	--	--	--	--	1	777.58	5.22	144A	148A	771.20	768.92	0.76%
148	846+78	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	775.93	5.76	148	148A	769.01	768.92	0.41%
148A	847+00	5.25	RT	--	--	--	1	--	--	--	--	--	--	--	1	775.99	6.41	148A	149	768.42	767.73	0.51%
149	847+00	141.00	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	149	OUTFALL	767.73	--	--
162	864+42	73.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	785.26	3.41	162	163	780.69	780.34	0.51%
163	864+42	5.25	RT	--	1	--	--	--	--	--	--	--	--	--	1	785.22	5.70	163	166	778.36	777.51	0.60%
166	865+84	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	783.13	4.46	166	166A	777.51	777.43	0.50%
166A	866+00	5.25	RT	--	1	--	--	--	--	--	--	--	--	--	1	782.86	4.27	166A	167A	777.43	777.08	0.51%
167	865+84	73.25	RT	--	--	--	--	--	1	--	--	--	--	--	1	783.17	4.10	167	167A	777.91	777.83	0.50%
167A	866+00	73.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	782.90	7.11	167A	168	774.63	774.50	0.52%
168	866+00	98.70	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	168	OUTFALL	774.50	--	--
171	869+00	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	776.47	4.28	171	172	771.03	770.68	0.51%

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 1000

STORM SEWER ITEMS

STRUCTURE NUMBER	STATION	OFFSET FT		611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2055 MANHOLES 5x5-FT EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	611.3003 INLETS 3-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0642 INLET COVERS TYPE MS EACH	611.0654 INLET COVERS TYPE V EACH	RIM OR FLANGE ELEV	STR DEPTH FT	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE
IH 94 NB																						
172	869+00	73.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	776.51	7.41	172	173	767.94	767.80	0.50%
173	869+00	100.90	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	173	OUTFALL	767.80	--	--
176	871+84	73.25	RT	--	--	--	--	--	1	--	--	--	--	--	1	768.39	3.57	176	176A	763.66	763.58	0.50%
176A	872+00	73.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	767.91	3.92	176A	177A	762.83	762.48	0.51%
177	871+84	5.25	RT	--	--	--	--	--	1	--	--	--	--	--	1	768.35	3.88	177	177A	763.31	763.23	0.50%
177A	872+00	5.25	RT	--	1	--	--	--	--	--	--	--	--	--	1	767.87	7.93	177A	180	758.78	758.09	0.50%
180	873+39	6.62	RT	--	--	--	1	--	--	--	--	--	1	--	--	763.81	10.73	180	183	752.00	751.19	0.50%
183	875+00	5.25	RT	--	--	--	--	1	--	--	--	--	--	--	1	759.76	15.57	183	184	743.03	742.52	0.75%
184	875+00	73.25	RT	--	--	--	--	1	--	--	--	--	--	--	1	759.80	16.12	184	185	742.52	741.50	0.75%
185	875+00	208.75	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	185	OUTFALL	741.50	--	--
186	876+80	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	756.56	5.90	186	187	749.50	749.14	0.52%
187	876+68	73.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	756.77	6.47	187	187A	749.14	749.08	0.43%
187A	876+68	87.30	RT	--	--	--	--	--	--	1	--	--	--	--	1	756.60	6.36	187A	188	749.08	748.68	0.51%
188	876+69	165.65	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	188	OUTFALL	748.68	--	--
190	877+84	5.25	RT	--	--	--	--	--	1	--	--	--	--	--	1	755.32	3.11	190	190A	751.05	750.97	0.50%
190A	878+00	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	755.17	3.84	190A	193	750.17	748.87	0.51%
193	880+57	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	753.68	3.65	193	193A	748.87	748.77	0.45%
193A	880+79	5.25	RT	--	1	--	--	--	--	--	--	--	--	--	1	753.56	8.70	193A	194	743.70	742.20	1.09%
194	881+06	139.93	RT	--	--	--	--	--	--	--	--	--	--	--	--	746.95	3.59	194	EX	742.20	EX	--
197	883+59	5.25	RT	--	--	--	--	--	1	--	--	--	--	--	1	752.16	3.16	197	197A	747.84	747.76	0.50%
197A	883+75	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	752.08	3.91	197A	198A	747.01	746.51	0.51%
198A	884+73	5.25	RT	--	1	--	--	--	--	--	--	--	--	--	1	751.59	3.92	198A	202	746.51	744.44	0.61%
202	888+12	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	749.90	4.30	202	202A	744.44	744.36	0.50%
202A	888+28	5.25	RT	--	--	--	1	--	--	--	--	--	--	--	1	749.82	4.80	202A	202B	743.86	743.33	0.50%
202B	888+27	173.70	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	202B	OUTFALL	743.02	--	--
205	891+00	5.25	RT	--	1	--	--	--	--	--	--	--	--	--	1	748.46	4.28	205	227	743.02	742.02	0.50%
208	893+84	73.25	RT	--	--	--	--	--	1	--	--	--	--	--	1	747.08	3.11	208	208A	742.81	742.73	0.50%
208A	894+00	73.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	747.00	3.86	208A	209A	741.98	741.52	0.68%
209	893+84	5.25	RT	--	--	--	--	--	--	1	--	--	--	--	1	747.04	4.28	209	209A	741.60	741.52	0.50%
209A	894+00	5.25	RT	--	1	--	--	--	--	--	--	--	--	--	1	746.96	4.28	209A	210	741.52	741.05	0.51%
210	894+93	5.25	RT	--	1	--	--	--	--	--	--	--	1	--	--	746.49	4.36	210	211	741.05	740.68	0.46%
211	894+93	86.00	RT	--	1	--	--	--	--	--	--	1	--	--	--	748.00	6.24	211	212A	740.68	739.74	0.45%
212	897+00	73.25	RT	--	--	--	--	--	1	--	--	--	--	--	1	745.91	3.11	212	212A	741.64	741.59	0.50%
212A	897+00	83.00	RT	1	--	--	--	--	--	--	--	1	--	--	--	744.80	3.98	212A	213	739.74	737.94	0.45%
213	901+00	87.00	RT	1	--	--	--	--	--	--	--	1	--	--	--	743.25	4.23	213	214	737.94	737.26	0.45%
214	902+52	86.10	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	214	OUTFALL	737.26	--	--
215	902+82	74.72	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	215	218	736.79	736.19	3.75%
216	902+68	87.15	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	216	218	737.19	737.14	0.36%
217	903+08	81.30	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	217	218	738.30	738.10	0.69%
218	902+81	91.37	RT	--	--	--	--	1	--	--	--	1	--	--	--	741.50	4.23	218	EX	736.19	EX	--
220	822+67	72.02	RT	--	--	1	--	--	--	--	--	--	1	--	--	769.89	9.03	220	221	759.78	759.54	1.04%
221	822+75	93.99	RT	--	1	--	--	--	--	--	--	1	--	--	--	764.30	3.70	221	222	759.52	759.25	0.31%
222	823+14	170.10	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	222	OUTFALL	759.25	--	--
223	822+71	72.11	RT	--	--	1	--	--	--	--	--	--	1	--	--	769.90	9.00	223	224	759.82	759.69	0.59%
224	822+82	91.41	RT	--	--	--	--	--	--	--	1	--	--	2	--	763.93	4.23	224	225	759.70	759.25	0.50%
225	823+24	170.45	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	225	OUTFALL	759.25	--	--
226	893+00	83.90	RT	--	--	--	--	--	--	--	1	--	--	2	--	746.02	1.84	226	227	743.02	742.62	0.51%
227	893+00	5.25	RT	--	1	--	--	--	--	--	--	--	1	--	--	747.46	4.28	227	209	742.02	741.6	0.50%
NB SUBTOTAL				2	18	2	4	6	11	27	2	5	6	4	55							

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 1000

STORM SEWER ITEMS

STRUCTURE NUMBER	STATION	OFFSET FT		611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2055 MANHOLES 5x5-FT EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	611.3003 INLETS 3-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0642 INLET COVERS TYPE MS EACH	611.0654 INLET COVERS TYPE V EACH	RIM OR FLANGE ELEV	STR DEPTH FT	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE
IH 94 SB																						
100	829+10	73.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	770.49	3.18	100	101	766.15	765.80	0.51%
101	829+10	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	770.45	3.49	101	102B	765.80	765.76	0.40%
104	832+16	73.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	771.44	2.08	104	104A	768.20	768.12	0.50%
104A	832+00	73.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	771.38	2.85	104A	105A	767.37	767.02	0.51%
105	832+16	5.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	771.39	2.38	105	105A	767.85	767.77	0.50%
105A	832+00	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	771.35	3.17	105A	106A	767.02	766.98	0.40%
110	835+03	73.25	LT	--	--	--	--	1	--	--	--	--	--	--	1	772.32	8.58	110	111	762.58	762.39	0.27%
111	835+19	5.25	LT	--	--	--	--	1	--	--	--	--	--	--	1	772.33	8.78	111	112B	762.39	762.37	0.18%
114	838+16	73.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	773.27	3.12	114	114A	768.99	768.91	0.50%
114A	838+00	73.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	773.24	3.92	114A	115A	768.16	767.80	0.53%
115	838+16	5.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	773.25	3.46	115	115A	768.63	768.55	0.50%
115A	838+00	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	773.20	4.24	115A	116A	767.80	767.76	0.36%
118	841+00	78.36	LT	--	--	--	--	--	--	1	--	--	--	--	1	774.11	3.92	118	119	769.03	768.66	0.51%
119	841+00	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	774.13	4.31	119	120A	768.66	768.60	0.60%
122	844+16	81.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	775.03	3.11	122	122A	770.76	770.68	0.50%
122A	844+00	81.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	774.98	3.89	122A	123A	769.93	769.54	0.51%
123	844+16	5.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	775.11	3.58	123	123A	770.37	770.29	0.50%
123A	844+00	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	775.06	4.36	123A	124A	769.54	769.48	0.55%
128	860+91	73.25	LT	--	1	--	--	--	--	--	--	--	--	--	1	788.03	3.68	128	129	783.19	782.84	0.51%
129	860+91	5.25	LT	--	1	--	--	--	--	--	--	--	--	--	1	787.99	3.99	129	127	782.84	782.58	0.53%
130	857+11	73.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	787.17	3.11	130	130A	782.90	782.79	0.50%
130A	856+89	73.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	787.00	3.80	130A	131A	782.04	781.62	0.62%
131	857+11	5.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	787.13	3.49	131	131A	782.48	782.37	0.50%
131A	856+89	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	786.96	4.18	131A	133A	781.62	781.52	0.91%
134	853+79	73.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	783.14	3.58	134	135	778.40	778.05	0.51%
135	853+79	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	783.10	3.89	135	137	778.05	778.00	0.45%
139	852+18	73.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	780.36	4.93	139	140	774.27	773.88	0.49%
143	850+16	5.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	777.74	3.11	143	143A	773.47	773.39	0.50%
143A	850+00	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	777.58	3.78	143A	144A	772.64	772.59	0.45%
145	847+57	115.25	LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	145	146	771.55	771.25	0.49%
146	847+00	93.00	LT	1	--	--	--	--	--	--	--	1	--	--	--	775.20	3.37	146	147	770.75	770.31	0.50%
147	847+00	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	775.99	4.52	147	148A	770.31	770.27	0.36%
160	864+42	73.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	785.26	3.37	160	161	780.73	780.39	0.50%
161	864+42	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	785.22	3.67	161	163	780.39	780.34	0.50%
164	865+84	73.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	783.17	3.36	164	164A	778.65	778.57	0.50%
164A	866+00	73.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	782.90	3.92	164A	165A	777.82	777.47	0.51%
165	865+84	5.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	783.13	3.67	165	165A	778.30	778.22	0.50%
165A	866+00	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	782.86	4.23	165A	166A	777.47	777.43	0.40%
169	869+00	73.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	776.51	3.92	169	170	771.43	771.08	0.51%
170	869+00	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	776.47	4.23	170	171	771.08	771.03	0.50%

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 1000

STORM SEWER ITEMS

STRUCTURE NUMBER	STATION	OFFSET FT		611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2055 MANHOLES 5x5-FT EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	611.3003 INLETS 3-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0642 INLET COVERS TYPE MS EACH	611.0654 INLET COVERS TYPE V EACH	RIM OR FLANGE ELEV	STR DEPTH FT	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE
IH 94 SB																						
174	871+84	73.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	768.38	3.33	174	174A	763.89	763.81	0.50%
174A	872+00	73.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	767.91	3.69	174A	175A	763.06	762.54	0.76%
175	871+84	5.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	768.34	3.81	175	175A	763.37	763.29	0.50%
175A	872+00	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	767.87	4.17	175A	177A	762.54	762.48	0.60%
178	873+44	87.09	LT	--	--	--	--	--	1	--	--	--	--	--	1	763.48	3.11	178	179	759.21	759.15	0.43%
179	873+45	73.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	763.63	4.07	179	180	758.40	758.05	0.44%
181	875+00	152.60	LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	181	182	746.00	744.52	1.01%
182	875+00	5.25	LT	--	--	--	--	1	--	--	--	--	--	--	1	759.76	14.08	182	183	744.52	744.43	0.90%
189	877+84	5.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	755.32	3.11	189	189A	751.05	750.97	0.50%
189A	878+00	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	755.16	3.28	189A	190A	750.72	750.67	0.50%
191	880+80	115.75	LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	191	192A	745.00	743.79	1.10%
192	880+57	5.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	753.67	3.13	192	192A	749.38	749.27	0.50%
192A	880+79	5.25	LT	--	1	--	--	--	--	--	--	--	--	--	1	753.56	8.61	192A	193A	743.79	743.70	0.90%
196	883+59	5.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	752.16	3.11	196	196A	747.89	747.81	0.50%
196A	883+75	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	752.08	3.36	196A	197A	747.56	747.51	0.50%
198	884+73	5.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	751.59	3.12	198	198A	747.31	747.26	0.50%
199	887+82	108.30	LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	199	199B	748.50	748.00	2.50%
199A	888+22	109.15	LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	199A	199B	748.50	748.00	2.50%
199B	888+02	110.92	LT	--	--	--	1	--	--	--	--	1	--	--	--	752.15	6.61	199B	200	744.46	744.26	0.51%
200	888+12	73.25	LT	--	1	--	--	--	--	--	--	--	--	--	1	749.94	4.52	200	201A	744.26	743.91	0.50%
201	888+12	5.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	749.90	3.50	201	201A	745.24	745.16	0.50%
201A	888+28	5.25	LT	--	--	--	1	--	--	--	--	--	--	--	1	749.82	4.75	201A	202A	743.91	743.86	0.45%
203	891+00	73.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	748.50	3.92	203	204	743.42	743.07	0.51%
204	891+00	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	748.46	4.23	204	205	743.07	743.02	0.45%
206	893+84	73.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	747.08	3.11	206	206A	742.81	742.73	0.50%
206A	894+00	73.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	747.00	3.86	206A	207A	741.98	741.57	0.60%
207	893+84	5.25	LT	--	--	--	--	--	1	--	--	--	--	--	1	747.04	3.48	207	207A	742.40	742.32	0.50%
207A	894+00	5.25	LT	--	--	--	--	--	--	1	--	--	--	--	1	746.96	4.23	207A	209A	741.57	741.52	0.45%
410	834+77	91.50	LT	--	--	--	--	1	--	--	--	1	--	--	--	768.11	4.42	410	112	762.61	762.37	0.24%
410	834+77	91.50	LT	--	--	--	--	--	--	--	--	--	--	--	--	768.11	4.42	410	410B	762.61	762.61	0.00%
410A	835+00	91.50	LT	--	--	--	--	1	--	--	--	--	--	1	--	768.11	4.42	410A	110	762.61	762.58	0.17%
410B	834+89	91.50	LT	--	--	--	--	1	--	--	--	1	--	--	--	768.11	4.42	410B	112A	762.61	762.37	0.24%
410B	834+89	91.50	LT	--	--	--	--	--	--	--	--	--	--	--	--	768.11	4.42	410B	410A	762.61	762.61	0.00%
SB SUBTOTAL				1	4	0	2	6	21	32	0	4	0	1	61							
RAMP SW																						
153	855+99	15.00	LT	--	--	--	--	--	--	1	--	--	--	--	1	778.35	6.35	153	154	770.84	770.50	0.52%
154	855+92	189.10	LT	--	--	--	--	--	--	--	--	--	--	--	--	--	N/A	154	OUTFALL	770.50	--	--
RAMP SUBTOTAL				0	0	0	0	0	0	1	0	0	0	0	1							
TOTALS (I.D. 1133-02-72)				3	22	2	6	12	32	60	2	9	6	5	117							

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 1000

STORM SEWER ITEMS

STRUCTURE NUMBER	STATION	OFFSET FT		608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	608.0342 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 42-INCH LF	608.0348 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH LF	608.0360 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 60-INCH LF	610.0134 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34x53-INCH LF	522.1015 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	522.1060 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 60-INCH EACH	523.0534 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34x53-INCH EACH	611.9800.S PIPE GRATES EACH	633.5200 MARKERS CULVERT END EACH	NOTES
IH 94 NB																						
102	829+81	5.25	RT	--	--	71	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
102A	828+00	3.10	LT	--	--	110	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
102B	829+10	5.25	RT	--	--	97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
103	829+09	102.00	RT	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1		
106	832+16	5.25	RT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
106A	832+00	5.25	RT	--	--	101	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
107	831+99	105.95	RT	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1		
112	834+97	5.25	RT	--	--	--	--	--	--	--	--	141	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
112A	835+09	5.25	RT	--	--	--	--	--	--	--	--	140	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
112B	835+20	5.25	RT	--	--	--	--	--	--	--	--	138	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
113	835+32	142.14	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	
113A	835+42	141.02	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	
113B	835+52	139.50	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	
116	838+16	5.25	RT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
116A	838+00	5.25	RT	--	--	114	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
117	838+00	118.75	RT	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1		
120	839+81	5.25	RT	--	--	119	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
120A	841+00	5.25	RT	--	--	117	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
121	841+00	122.05	RT	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1		
124	844+16	5.25	RT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
124A	844+00	5.25	RT	--	--	114	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
125	844+00	119.10	RT	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1		
126	860+43	71.00	RT	--	--	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SEE STR DETAIL R-40-525
127	860+43	5.25	RT	--	--	332	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
132	857+13	71.00	RT	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SEE STR DETAIL R-40-525
132A	856+85	71.00	RT	--	--	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SEE STR DETAIL R-40-525
133	857+11	5.25	RT	--	--	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
133A	856+89	5.25	RT	--	--	310	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
136	853+84	71.00	RT	--	--	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	SEE STR DETAIL R-40-525
137	853+79	5.25	RT	--	--	164	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
140	852+18	5.25	RT	--	--	199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
142	850+16	73.25	RT	--	--	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
144	850+16	5.25	RT	--	--	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
144A	850+00	5.25	RT	--	--	300	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
148	846+78	5.25	RT	--	--	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
148A	847+00	5.25	RT	--	--	--	136	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
149	847+00	141.00	RT	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1	
162	864+42	73.25	RT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
163	864+42	5.25	RT	--	--	142	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
166	865+84	5.25	RT	--	--	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
166A	866+00	5.25	RT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
167	865+84	73.25	RT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
167A	866+00	73.25	RT	--	--	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
168	866+00	98.70	RT	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1		
171	869+00	5.25	RT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 1000

STORM SEWER ITEMS

STRUCTURE NUMBER	STATION	OFFSET FT		608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 18-INCH LF	608.0324 24-INCH LF	608.0330 30-INCH LF	608.0336 36-INCH LF	608.0342 42-INCH LF	608.0348 48-INCH LF	608.0360 60-INCH LF	610.0134 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34x53-INCH LF	522.1015 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH EACH	522.1018 18-INCH EACH	522.1024 24-INCH EACH	522.1030 30-INCH EACH	522.1036 36-INCH EACH	522.1060 60-INCH EACH	523.0534 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34x53-INCH EACH	611.9800.S PIPE GRATES EACH	633.5200 MARKERS CULVERT END EACH	NOTES
IH 94 NB																					
172	869+00	73.25	RT	--	--	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
173	869+00	100.90	RT	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1	
176	871+84	73.25	RT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
176A	872+00	73.25	RT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
177	871+84	5.25	RT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
177A	872+00	5.25	RT	--	--	139	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
180	873+39	6.62	RT	--	--	--	--	--	161	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD 24" WEST INVERT
183	875+00	5.25	RT	--	--	--	--	--	--	--	68	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
184	875+00	73.25	RT	--	--	--	--	--	--	--	136	--	--	--	--	--	--	--	--	--	
185	875+00	208.75	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	1	
186	876+80	5.25	RT	--	--	69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
187	876+68	73.25	RT	--	--	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
187A	876+68	87.30	RT	--	--	78	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
188	876+69	165.65	RT	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1	
190	877+84	5.25	RT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
190A	878+00	5.25	RT	--	--	257	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
193	880+57	5.25	RT	--	--	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
193A	880+79	5.25	RT	--	--	137	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
194	881+06	139.93	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	CONNECT TO EX MH
197	883+59	5.25	RT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
197A	883+75	5.25	RT	--	--	98	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
198A	884+73	5.25	RT	--	--	339	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
202	888+12	5.25	RT	--	--	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
202A	888+28	5.25	RT	--	--	--	105	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
202B	888+27	173.70	RT	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	1	
205	891+00	5.25	RT	--	--	200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
208	893+84	73.25	RT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
208A	894+00	73.25	RT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
209	893+84	5.25	RT	--	--	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
209A	894+00	5.25	RT	--	--	93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	BULKHEAD WEST INVERT
210	894+93	5.25	RT	--	--	81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
211	894+93	86.00	RT	--	--	207	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
212	897+00	73.25	RT	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
212A	897+00	83.00	RT	--	--	400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
213	901+00	87.00	RT	--	--	152	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
214	902+52	86.10	RT	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	1	
215	902+82	74.72	RT	--	--	--	--	--	--	16	--	--	--	--	--	--	--	--	--	--	REM. AEW, CONNECT TO PIPE
216	902+68	87.15	RT	--	--	14	--	--	--	--	--	--	--	--	1	--	--	--	--	1	
217	903+08	81.30	RT	--	29	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	
218	902+81	91.37	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	CONNECT TO EX BOX CULV.
220	822+67	72.02	RT	--	--	--	--	23	--	--	--	--	--	--	--	--	--	--	--	--	CONNECT TO EX PIPE
221	822+75	93.99	RT	--	--	--	--	86	--	--	--	--	--	--	--	--	--	--	--	--	
222	823+14	170.10	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	
223	822+71	72.11	RT	--	--	--	--	22	--	--	--	--	--	--	--	--	--	--	--	--	CONNECT TO EX PIPE
224	822+82	91.41	RT	--	--	--	--	90	--	--	--	--	--	--	--	--	--	--	--	--	
225	823+24	170.45	RT	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	1	
226	893+00	83.90	RT	--	79	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
227	893+00	5.25	RT	--	--	84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
NB SUBTOTAL				182	108	5,443	241	221	161	16	204	419	0	1	10	2	2	1	3	2	19	

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 1000

STORM SEWER ITEMS

STRUCTURE NUMBER	STATION	OFFSET FT		608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 18-INCH LF	608.0324 24-INCH LF	608.0330 30-INCH LF	608.0336 36-INCH LF	608.0342 42-INCH LF	608.0348 48-INCH LF	608.0360 60-INCH LF	610.0134 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34x53-INCH LF	522.1015 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH EACH	522.1018 18-INCH EACH	522.1024 24-INCH EACH	522.1030 30-INCH EACH	522.1036 36-INCH EACH	522.1060 60-INCH EACH	523.0534 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34x53-INCH EACH	611.9800.S PIPE GRATES EACH	633.5200 MARKERS CULVERT END EACH	NOTES
IH 94 SB																						
100	829+10	73.25	LT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
101	829+10	5.25	LT	--	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
104	832+16	73.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
104A	832+00	73.25	LT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
105	832+16	5.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
105A	832+00	5.25	LT	--	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
110	835+03	73.25	LT	--	--	--	--	--	--	--	--	70	--	--	--	--	--	--	--	--	--	
111	835+19	5.25	LT	--	--	--	--	--	--	--	--	11	--	--	--	--	--	--	--	--	--	
114	838+16	73.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
114A	838+00	73.25	LT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
115	838+16	5.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
115A	838+00	5.25	LT	--	--	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
118	841+00	78.36	LT	--	--	73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
119	841+00	5.25	LT	--	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
122	844+16	81.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
122A	844+00	81.25	LT	--	--	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
123	844+16	5.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
123A	844+00	5.25	LT	--	--	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
128	860+91	73.25	LT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
129	860+91	5.25	LT	--	--	49	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
130	857+11	73.25	LT	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
130A	856+89	73.25	LT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
131	857+11	5.25	LT	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
131A	856+89	5.25	LT	--	--	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
134	853+79	73.25	LT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
135	853+79	5.25	LT	--	--	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
139	852+18	73.25	LT	--	--	79	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
143	850+16	5.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
143A	850+00	5.25	LT	--	--	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
145	847+57	115.25	LT	--	61	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	1	
146	847+00	93.00	LT	--	--	88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
147	847+00	5.25	LT	--	--	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
160	864+42	73.25	LT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
161	864+42	5.25	LT	--	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
164	865+84	73.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
164A	866+00	73.25	LT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
165	865+84	5.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
165A	866+00	5.25	LT	--	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
169	869+00	73.25	LT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
170	869+00	5.25	LT	--	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 1000

STORM SEWER ITEMS

STRUCTURE NUMBER	STATION	OFFSET FT		608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 18-INCH LF	608.0324 24-INCH LF	608.0330 30-INCH LF	608.0336 36-INCH LF	608.0342 42-INCH LF	608.0348 48-INCH LF	608.0360 60-INCH LF	610.0134 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34x53-INCH LF	522.1015 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH EACH	522.1018 18-INCH EACH	522.1024 24-INCH EACH	522.1030 30-INCH EACH	522.1036 36-INCH EACH	522.1060 60-INCH EACH	523.0534 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 34x53-INCH EACH	611.9800.S PIPE GRATES EACH	633.5200 MARKERS CULVERT END EACH	NOTES
IH 94 SB																						
174	871+84	73.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
174A	872+00	73.25	LT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
175	871+84	5.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
175A	872+00	5.25	LT	--	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
178	873+44	87.09	LT	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
179	873+45	73.25	LT	--	--	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
181	875+00	152.60	LT	--	--	--	--	--	--	--	147	--	--	--	--	--	--	1	--	1	1	
182	875+00	5.25	LT	--	--	--	--	--	--	--	10	--	--	--	--	--	--	--	--	--	--	
189	877+84	5.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
189A	878+00	5.25	LT	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
191	880+80	115.75	LT	--	--	110	--	--	--	--	--	--	--	--	1	--	--	--	--	1	1	
192	880+57	5.25	LT	22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
192A	880+79	5.25	LT	--	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
196	883+59	5.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
196A	883+75	5.25	LT	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
198	884+73	5.25	LT	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
199	887+82	108.30	LT	20	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1	
199A	888+22	109.15	LT	20	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1	
199B	888+02	110.92	LT	--	--	--	39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	REMOVE EX AEW AND 10' OF PIPE
200	888+12	73.25	LT	--	--	--	70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
201	888+12	5.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
201A	888+28	5.25	LT	--	--	--	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
203	891+00	73.25	LT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
204	891+00	5.25	LT	--	--	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
206	893+84	73.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
206A	894+00	73.25	LT	--	--	68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
207	893+84	5.25	LT	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
207A	894+00	5.25	LT	--	--	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
410	834+77	91.50	LT	--	--	--	--	--	--	--	--	99	--	--	--	--	--	--	--	--	--	SEE NOTE 8
410	834+77	91.50	LT	--	--	--	--	--	--	--	--	12	--	--	--	--	--	--	--	--	--	SEE NOTE 8
410A	835+00	91.50	LT	--	--	--	--	--	--	--	--	18	--	--	--	--	--	--	--	--	--	CONNECT TO EX PIPE
410B	834+89	91.50	LT	--	--	--	--	--	--	--	--	99	--	--	--	--	--	--	--	--	--	SEE NOTE 8
410B	834+89	91.50	LT	--	--	--	--	--	--	--	--	12	--	--	--	--	--	--	--	--	--	SEE NOTE 8
SB SUBTOTAL				386	81	1,539	120	0	0	0	157	321	2	1	1	0	0	1	0	3	5	
RAMP SW																						
153	855+99	15.00	LT	--	--	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
154	855+92	189.10	LT	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	1	
RAMP SUBTOTAL				0	0	66	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	
TOTALS (I.D. 1133-02-72)				568	189	7,048	361	221	161	16	361	740	2	2	12	2	2	2	3	5	25	

NOTES

1) JOINT TIES FOR CONCRETE PIPE SHALL BE PROVIDED AT ALL CONCRETE APRON ENDWALLS. APRON ENDWALLS SHALL BE TIED FOR THE LAST THREE JOINTS AT PIPE ENDS. THE COST OF THESE TIES SHALL BE INCIDENTAL TO THE COST OF THE PIPE.
2) STATIONS ARE TO THE CENTER OF STRUCTURES OR TO THE APRON END OF ENDWALLS. OFFSETS ARE TO THE FLANGE LINE FOR STRUCTURES IN THE ROADWAY WITH INLET GRATES, AND TO THE CENTER OF STRUCTURE FOR FIELD INLETS AND MANHOLES WITH SOLID LIDS.
3) PIPE LENGTHS AND SLOPES ARE MEASURED TO THE CENTER OF STRUCTURE OR THE APRON END OF ENDWALLS (INCLUDES LENGTH OF AEW)
4) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVER FOR MANHOLES
5) STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING HEIGHT - ADJUSTMENT
   CASTING HEIGHT = 0.75 FT FOR J COVERS; 0.83 FT FOR TYPE V; 0 FT FOR TYPE MS COVERS
   ADJUSTMENT (RINGS) = 0.33 FT FOR V & J COVERS; 0 FT FOR TYPE MS COVERS
6) FLAT TOP SLAB WITH CENTERED 21" X 24" RECTANGULAR OPENING REQUIRED ON ALL MANHOLES WITH TYPE V INLET COVERS
7) FLAT TOP SLAB WITH CENTERED 21" X 24" RECTANGULAR OPENING REQUIRED ON INLETS 3 OR 4-FT DIA WITH TYPE V INLET COVERS
8) FOR FUTURE 34" x 53" CONNECTION TO WEST, CAST IE AT 762.61 AND BULKHEAD

NOTE: ALL ITEMS ON THIS SHEET ARE PAID UNDER CATEGORY 1000

FTMS EACH ITEMS

CATEGORY				1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300
ROADWAY	STATION	LOCATION	ITEM ID	656.0400 ELECTRICAL SERVICE METER BREAKER PEDESTAL (CCTV-51-0065) L.S.	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (CCTV-51-0065) L.S.	657.0322 POLES TYPE 5-ALUMINUM EACH	673.0225.S INSTALL POLE MOUNTED CABINET EACH	675.0300 INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY EACH	675.0400.S INSTALL ETHERNET SWITCH EACH	677.0100 INSTALL CAMERA POLE EACH	677.0200 INSTALL CAMERA ASSEMBLY EACH	677.0300.S INSTALL VIDEO ENCODER EACH	678.0300 FIBER OPTIC SPLICE EACH	678.0400 FIBER OPTIC TERMINATION EACH	SPV.0060.2060 REFOCUS PORTABLE VIDEO SURVEILLANCE SYSTEM EACH	SPV.0060.2100 GROUND ROD EACH
IH 94 / WIS 20	849+00	115' RT	DP8491	--	--	1	--	2	--	--	--	--	--	--	--	1
	863+75	88' RT	CCTV-51-0065	--	1	--	1	--	1	1	1	1	--	6	--	1
	862+75	105' RT	MB8621	1	--	--	--	--	--	--	--	--	--	--	--	1
	864NW+80	70' LT	EXCV8651	--	--	--	--	--	--	--	--	--	6	--	--	--
	876+50	120' RT	DP8771	--	--	1	--	2	--	--	--	--	--	--	--	1
		UNDISTRIBUTED		--	--	--	--	--	--	--	--	--	--	--	4	--
TOTALS				1	1	2	1	4	1	1	1	1	6	6	4	4

FTMS CONDUIT AND CABLE ITEMS

CATEGORY			1300	1300	1300	1300	1300	1300	1300	1300	1300
ROADWAY	ITEM ID	LINEAR DISTANCE	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0125 CONDUIT RIGID METALLIC 2-INCH LF	655.0525 ELECTRICAL WIRE TRAFFIC SIGNALS 6 AWG LF	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF	652.0605 CONDUIT SPECIAL 2-INCH LF	671.0132 CONDUIT HDPE 3-DUCT 2-INCH LF	671.0300 FIBER OPTIC CABLE MARKER EACH	674.0200 CABLE MICROWAVE DETECTOR LF	678.0006 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT LF
IH 94 / WIS 20	CV8291 - CV8481	1850	--	--	--	1850	--	1850	--	--	--
	CV8481 - CV8561	825	--	--	--	825	--	825	--	--	--
	CV8661 - CV8771	1050	--	--	--	1050	--	1050	--	--	--
	CV8781 - EXCV8651	1300	--	--	--	1300	--	1300	3	--	1400
	CV8771 - PB8771	105	315	--	--	105	--	--	2	--	365
	PB8771 - DP8771	15	30	--	--	15	--	--	--	30	--
	PB8771 - PB8731	290	870	--	--	290	--	--	2	580	290
	PB8731 - PB8701	290	870	--	--	290	--	--	2	580	290
	PB8701 - PB8671	295	885	--	--	295	--	--	2	590	295
	PB8671 - PB8641	315	945	--	--	315	--	--	2	630	315
	PB8641 - PB8642	40	120	--	--	40	--	--	--	80	--
	PB8641 - CCTV-51-0065	15	45	--	--	15	--	--	--	60	15
	MB8621 - PB8643	65	65	--	195	--	--	--	--	--	--
	PB8643 - CCTV-51-0065	15	--	15	45	--	--	--	--	--	--
	DP8491 - PB8491	15	30	--	--	30	--	--	--	30	--
	PB8491 - PB8521	310	620	--	--	310	--	--	--	620	--
	PB8521 - PB8561	350	700	--	--	350	--	--	--	700	--
	PB8561 - PB8571	315	630	--	--	315	--	--	--	630	--
	PB8571 - PB8642	350	700	--	--	350	700	--	--	700	--
TOTALS			6825	15	240	7745	700	5025	13	5230	2970

FTMS PULL BOXES, VAULTS, AND BASES

CATEGORY				1300	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300
ROADWAY	STATION	LOCATION	ITEM ID	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH	653.0135 PULL BOXES STEEL 24 X 36 - INCH EACH	654.0105 CONCRETE BASES TYPE 5 EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	672.0250 BASE CAMERA POLE 50-FT EACH	673.0105 COMMUNICATION VAULT TYPE 1 ITEM EACH	SPV.0060.2040 INSTALL ANTENNA EACH	SPV.0060.2050 INSTALL 900 MHZ RADIO EACH	SPV.0060.2070 INSTALL WIRELESS ETHERNET BRIDGE EACH	SPV.0060.2080 INSTALL PORTABLE VIDEO SURVEILLANCE SYSTEM EACH	SPV.0060.2090 INSTALL TEMPORARY VEHICLE DETECTOR ASSEMBLY EACH
IH 94 / WIS 20	827+00	69' RT	TMD8271	--	--	--	--	--	--	--	--	--	--	1
	827+34	80' RT	PCCTV8271	--	--	--	--	--	--	--	--	--	1	--
	829+10	98' RT	CV8291	--	--	--	--	--	1	--	--	--	--	--
	847+66	154' RT	CV8481	--	--	--	--	--	1	--	--	--	--	--
	849+00	115' RT	DP8491	--	--	1	1	--	--	--	--	--	--	--
	849+15	125' RT	PB8491	--	1	--	--	--	--	--	--	--	--	--
	852+28	86' RT	PB8521	--	1	--	--	--	--	--	--	--	--	--
	855+85	85' RT	PB8561	--	1	--	--	--	--	--	--	--	--	--
	859+05	85' RT	PB8571	--	1	--	--	--	--	--	--	--	--	--
	863+95	130' RT	PB8642	--	1	--	--	--	--	--	--	--	--	--
	863+75	90' RT	PB8641	--	1	--	--	--	--	--	--	--	--	--
	863+50	85' RT	PB8643	--	1	--	--	--	--	--	--	--	--	--
	867+00	85' RT	PB8671	--	1	--	--	--	--	--	--	--	--	--
	870+00	85' RT	PB8701	--	1	--	--	--	--	--	--	--	--	--
	863+75	88' RT	CCTV-51-0065	--	--	--	--	1	--	--	--	--	--	--
	867NE+00	25' RT	CV8661	--	--	--	--	--	1	--	--	--	--	--
	873+05	85' RT	PB8731	--	1	--	--	--	--	--	--	--	--	--
	876+00	85' RT	PB8761	--	1	--	--	--	--	--	--	--	--	--
	876+35	120' RT	PB8771	--	1	--	--	--	--	--	--	--	--	--
	876+50	120' RT	DP8771	--	--	1	1	--	--	--	--	--	--	--
	877+50	105' RT	CV8771	--	--	--	--	--	1	--	--	--	--	--
	877+35	95' LT	CV8781	--	--	--	--	--	1	--	--	--	--	--
	864NW+80	70' LT	EXCV8651	1	--	--	--	--	1	--	--	--	--	--
	890+75	70' RT	CV8911	--	--	--	--	--	1	--	--	--	--	--
	891+60	110' RT	CV8921	--	--	--	--	--	1	--	--	--	--	--
	894+90	80' RT	CV8951	--	--	--	--	--	1	--	--	--	--	--
	901+90	75' RT	PCCTV9021	--	--	--	--	--	--	--	--	--	1	--
	901+70	80' RT	TMD9011	--	--	--	--	--	--	--	--	--	--	1
	4-MILE RD.		CCTV-51-0064	--	--	--	--	--	--	1	1	1	--	--
TOTALS				1	12	2	2	1	9	1	1	1	2	2

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\030201_mq_fm.ppt PLOT DATE : 11/21/2013 1:10:06 PM PLOT BY : MSCCEJ PLOT NAME : 030201_mq_fm2 PLOT SCALE : 1:1

3

FTMS EACH ITEM REMOVALS

CATEGORY				1300	1300	1300	1300	1300	1300	1300
ROADWAY	STATION	OFFSET	ITEM	204.0195 REMOVING CONCRETE BASES EACH	653.0905 REMOVING PULLBOXES EACH	677.9051.S REMOVING 50-FOOT CAMERA POLE EACH	677.9200.S REMOVING CCTV CAMERA EACH	SPV.0060.2000 REMOVING ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH	SPV.0060.2010 REMOVING CONTROLLER CABINET BASE EACH	SPV.0060.2020 REMOVING CONTROLLER CABINET EACH
IH 94 / WIS 20	854+92	107' RT	EXPB8551	--	1	--	--	--	--	--
	858+50	107' RT	EXPB8581	--	1	--	--	--	--	--
	860+90	119' RT	EXPB8611	--	1	--	--	--	--	--
	860+90	61' RT	EXPB8612	--	1	--	--	--	--	--
	863+22	72' RT	EXPB8631	--	1	--	--	--	--	--
	863+43	123' RT	EXPB8641	--	1	--	--	--	--	--
	862+49	165' RT	EXPB8621	--	1	--	--	--	--	--
	863+15	117' RT	EX-CB-SDS-51-0092	--	--	--	--	--	1	1
	863+09	100' RT	EXMB8641	--	--	--	--	1	--	--
	864+91	125' RT	EXPB8651	--	1	--	--	--	--	--
	864+70	73' RT	EXPB8652	--	1	--	--	--	--	--
	864+10	281' RT	EXPB8653	--	1	--	--	--	--	--
	862+14	207' RT	EXPB8623	--	1	--	--	--	--	--
	862+00	300' RT	EXPB8624	--	1	--	--	--	--	--
	863+38	73' LT	EXPB8632	--	1	--	--	--	--	--
	863+58	100' LT	EXPB8633	--	1	--	--	--	--	--
	863+62	100' LT	EX-HUB-51-008	--	--	--	--	1	1	1
	863+88	73' LT	EXPB8642	--	1	--	--	--	--	--
	864+92	78' LT	EXPB8654	--	1	--	--	--	--	--
	865+31	125' LT	EXPB8655	--	1	--	--	--	--	--
	869+64	150' LT	EXPB8691	--	1	--	--	--	--	--
	872+77	188' LT	EXPB8731	--	1	--	--	--	--	--
	864+45	240' LT	EXPB8643	--	1	--	--	--	--	--
	862+57	257' LT	EXPB8622	--	1	--	--	--	--	--
	862+45	175' LT	EXPB8626	--	1	--	--	--	--	--
	862+13	125' LT	EXPB8622	--	1	--	--	--	--	--
	861+43	76' LT	EXPB8621	--	1	--	--	--	--	--
	859+52	131' LT	EXPB8591	--	1	--	--	--	--	--
	863+36	60' RT	EX-CCTV-51-0065	1	--	1	1	--	--	--
TOTALS				1	25	1	1	2	2	2

FTMS LINEAR FOOT REMOVALS

CATEGORY			1300
			674.0300 REMOVE CABLE
ROADWAY	ITEM ID	LINEAR DISTANCE	LF
IH 94 / WIS 20	EXPB8551 - EXPB8581	360	360
	EXPB8581 - EXPB8611	245	245
	EXPB8611 - EXPB8612	60	60
	EXPB8612 - EXJB8612	20	20
	EXJB8612 - EXJB8631	215	215
	EXJB8631 - EXPB8631	20	20
	EXPB8631 - EX-CCTV-51-0065	15	15
	EXPB8631 - EXPB8641	55	55
	EXPB8641 - EX-CB-SDS-51-0092	25	25
	EXPB8641 - EXPB8621	110	110
	EXPB8621 - EXPB8653	170	170
	EXPB8641 - EXPB8651	150	150
	EXPB8651 - EXPB8652	55	55
	EXPB8621 - EXPB8632	255	255
	EXPB8632 - EXPB8633	35	35
	EXPB8633 - EX-HUB-51-008	10	10
	EXPB8633 - EXPB8643	185	185
	EXPB8652 - EXPB8654	165	165
	EXPB8654 - EXPB8655	65	65
	EXPB8655 - EXPB8691	430	430
	EXPB8642 - EXPB8731	935	935
	EXPB8731 - EXCV8741	165	165
	EXPB8654 - EXPB8642	105	105
	EXPB8642 - EXJUB8642	10	10
	EXJB8642 - EXJB8621	215	215
	EXJB8621 - EXPB8621	15	15
	EXPB8621 - EXPB8591	200	200
TOTALS			4,290

FTMS LUMP SUM ITEMS

CATEGORY	ROADWAY	670.0100 FIELD SYSTEM INTEGRATOR LS	670.0200 ITS DOCUMENTATION LS	678.0500 COMMUNICATION SYSTEM TESTING LS
1300	IH 94 / WIS 20 PROJECT	1	1	1
	TOTALS	1	1	1

TYPE I&II PERMANENT SIGNING -

CATEGORY CODE 1000

SIGN NO.	SIGN CODE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W x H [IN.] x [IN.]	637.2210 SIGNS REFLC 'H' TYPE II [SF]	637.2230 SIGNS REFLC "F" TYPE II [SF]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4"X 6"x18' [EA]	634.0885 POSTS TUBULAR STEEL 2"X2"X8.5' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS	TYPE I SIGN SIZE W x H [FT.] x [FT.]	637.1220 SIGNS REFLC 'SH' SHEETING TYPE I [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]
1	--	II	EXIT 50 MPH	-- x --	--	--	--	1	2	--	--	--	--	-- x --	--	--	--
2	--	I	[EXIT 333] [20] RACINE MT PLEASANT	-- x --	--	--	--	--	--	--	--	--	--	-- x --	--	1	2
3	*NOT USED*	--	--	-- x --	--	--	--	--	--	--	--	--	--	-- x --	--	--	--
4	*NOT USED*	--	--	-- x --	--	--	--	--	--	--	--	--	--	-- x --	--	--	--
5	D10-5(5)	II	WEST (94 SHIELD) MILE 333 / 8	21 x 60	8.750	--	--	1	1	--	1	--	MOUNTING ON TOP OF BARRIER WALL INCIDENTAL	-- x --	--	--	--
6	D10-5(5)	II	EAST (94 SHIELD) MILE 333 / 8	21 x 60	8.750	--	--	1	--	--	--	5	--	-- x --	--	--	--
7	--	II	EXIT 333 [ARROW]	-- x --	--	--	--	1	2	--	--	--	SIGN REPLACED - SIGN #23	-- x --	--	--	--
8	R2-1(5)	II	SPEED LIMIT 65	48 x 60	20.000	--	--	1	1	1	--	--	--	-- x --	--	--	--
9	--	II	J-ASSEMBLY EAST [94] SOUTH [41]	-- x --	--	--	--	1	1	--	--	--	--	-- x --	--	--	--
10	--	II	SLOWER TRAFFIC KEEP RT	-- x --	--	--	--	1	1	--	--	--	SIGN REPLACED - SIGN #24	-- x --	--	--	--
11	E6-1	I	[20] RACINE [ARROW] MT PLEASANT	-- x --	--	--	--	--	--	--	--	--	MOUNT ON S-51-27	19 x 10	190.00	--	--
11A	E1-5	I	EXIT 333	-- x --	--	--	--	--	--	--	--	--	--	11 x 2.5	27.50	--	--
12	D10-5(5)	II	WEST (94 SHIELD) MILE 333 / 6	21 x 60	8.750	--	--	1	1	--	1	--	MOUNTING ON TOP OF BARRIER WALL INCIDENTAL	-- x --	--	--	--
13	D10-5(5)	II	EAST (94 SHIELD) MILE 333 / 6	21 x 60	8.750	--	--	1	--	--	--	12	--	-- x --	--	--	--
14	--	II	WEST (94 SHIELD) MILE 333 / 5	-- x --	--	--	--	1	1	--	--	--	--	-- x --	--	--	--
15	--	II	EAST (94 SHIELD) MILE 333 / 5	-- x --	--	--	--	1	--	--	--	--	--	-- x --	--	--	--
16	--	II	WEST (94 SHIELD) MILE 333 / 7	-- x --	--	--	--	1	1	--	--	--	--	-- x --	--	--	--
17	--	II	EAST (94 SHIELD) MILE 333 / 7	-- x --	--	--	--	1	--	--	--	--	--	-- x --	--	--	--
18	J4-1(5)	--		72 x 54	27.000	--	--	--	--	2	--	--	SEE PLAN SHEET FOR SIGN DETAIL	-- x --	--	--	--
	MB3-2	II	EAST	36 x 18	--	--	--	--	--	--	--	--		-- x --	--	--	--
	M1-1	II	[94]	36 x 36	--	--	--	--	--	--	--	--		-- x --	--	--	--
	M3-3	II	SOUTH	36 x 18	--	--	--	--	--	--	--	--		-- x --	--	--	--
	M1-4	II	[45]	36 x 36	--	--	--	--	--	--	--	--		-- x --	--	--	--
19	W5-58(2)	II	IMPACT ATTNTR MARKER	36 x 36	--	9.000	--	--	--	--	--	--	INSTALL ON IMPACT ATTENUATOR	-- x --	--	--	--
20	D10-5(5)	II	WEST (94 SHIELD) MILE 333 / 4	21 x 60	8.750	--	--	1	1	--	1	--	MOUNTING ON TOP OF BARRIER WALL INCIDENTAL	-- x --	--	--	--
21	D10-5(5)	II	EAST (94 SHIELD) MILE 333 / 4	21 x 60	8.750	--	--	1	--	--	--	20		-- x --	--	--	--
22	--	II	CLEARANCE STRIPER	-- x --	--	--	--	1	1	--	--	--	--	-- x --	--	--	--
23	E5-1A(5)	II	EXIT 333 [ARROW]	90 x 60	37.500	--	--	--	--	2	--	--	EXISTING SIGN REMOVED - SIGN #7 MOUNT ON WALL PER DETAIL INCIDENTAL TO SUPPORTS	-- x --	--	--	--
24	*NOT USED*	II	--	-- x --	--	--	--	--	--	--	--	--	--	-- x --	--	--	--
25	W5-52R(5)	II	BRIDGE MARKER	18 x 54		6.750	--	--	--	1	--	--	4-FT MOUNTING HEIGHT	-- x --	--	--	--
26	W5-52R(5)	II	BRIDGE MARKER	18 x 54		6.750	--	--	--	1	--	--	4-FT MOUNTING HEIGHT	-- x --	--	--	--
27	W5-52L(5)	II	BRIDGE MARKER	18 x 54		6.750	--	--	--	1	--	--	4-FT MOUNTING HEIGHT MOUNT ON WALL PER DETAIL INCIDENTAL TO SUPPORTS	-- x --	--	--	--

TYPE I&II PERMANENT SIGNING -

CATEGORY CODE 1000

SIGN NO.	SIGN CODE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W x H [IN.] x [IN.]	637.2210 SIGNS REFLC 'H' TYPE II [SF]	637.2230 SIGNS REFLC "F" TYPE II [SF]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4"X 6"x18' [EA]	634.0885 POSTS TUBULAR STEEL 2"X2"X8.5' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS	TYPE I SIGN SIZE W x H [FT.] x [FT.]	637.1220 SIGNS REFLC 'SH' SHEETING TYPE I [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]
28	W5-52L(5)	II	BRIDGE MARKER	18 x 54		6.750	--	--	--	1	--	--	4-FT MOUNTING HEIGHT MOUNT ON WALL PER DETAIL INCIDENTAL TO SUPPORTS	-- x --	--	--	--
29	--	II	WEST (94 SHIELD) MILE 333 / 3	-- x --	--	--	--	1	1	--	--	--	--	-- x --	--	--	--
30	--	II	EAST (94 SHIELD) MILE 333 / 3	-- x --	--	--	--	1	--	--	--	--	--	-- x --	--	--	--
31	W4-1(5)	II	MERGE SIGN	48 x 48	--	16.000	--	1	1	1	--	--	--	-- x --	--	--	--
32	D10-5(5)	II	WEST (94 SHIELD) MILE 333 / 2	21 x 60	8.750	--	--	1	1	--	1	--	MOUNTING ON TOP OF BARRIER WALL INCIDENTAL	-- x --	--	--	--
33	D10-5(5)	II	EAST (94 SHIELD) MILE 333 / 2	21 x 60	8.750	--	--	1	--	--	--	32	--	-- x --	--	--	--
34	--	II	WEST (94 SHIELD) MILE 333 / 1	-- x --	--	--	--	1	1	--	--	--	--	-- x --	--	--	--
35	--	II	EAST (94 SHIELD) MILE 333 / 1	-- x --	--	--	--	1	--	--	--	--	SIGN SUPPORT REMOVED - SIGN #34	-- x --	--	--	--
36	W4-1(5)	II	MERGE SIGN	48 x 48	--	16.000	--	1	1	1	--	--	--	-- x --	--	--	--
37	--	II	WEST (94 SHIELD) MILE 332 / 9	-- x --	--	--	--	1	1	--	--	--	--	-- x --	--	--	--
38	--	II	EAST (94 SHIELD) MILE 332 / 9	-- x --	--	--	--	1	--	--	--	--	--	-- x --	--	--	--
39	E5-1A(5)	II	EXIT 333 [ARROW]	90 x 60	37.500	--	--	1	2	2	--	--	--	-- x --	--	--	--
40	D10-5(5)	II	WEST (94 SHIELD) MILE 333 / 0	21 x 60	8.750	--	--	1	1	--	1	--	MOUNTING ON TOP OF BARRIER WALL INCIDENTAL	-- x --	--	--	--
41	D10-5(5)	II	EAST (94 SHIELD) MILE 333 / 0	21 x 60	8.750	--	--	1	--	--	--	40	--	-- x --	--	--	--
42	*NOT USED*	--	--	-- x --	--	--	--	--	--	--	--	--	--	-- x --	--	--	--
43	D10-5(5)	II	WEST (94 SHIELD) MILE 332 / 8	21 x 60	8.750	--	--	1	1	--	1	--	MOUNTING ON TOP OF BARRIER WALL INCIDENTAL	-- x --	--	--	--
44	D10-5(5)	II	EAST (94 SHIELD) MILE 332 / 8	21 x 60	8.750	--	--	1	--	--	--	43	--	-- x --	--	--	--
45	--	II	EXIT 50 MPH	-- x --	--	--	--	1	1	--	--	--	--	-- x --	--	--	--
46	--	II	WEST (94 SHIELD) MILE 332 / 7	-- x --	--	--	--	1	1	--	--	--	--	-- x --	--	--	--
47	--	II	EAST (94 SHIELD) MILE 332 / 7	-- x --	--	--	--	1	--	--	--	--	--	-- x --	--	--	--
48	J4-1(5)	--	--	72 x 54	27.000	--	--	1	2	2	--	--	SEE PLAN SHEET FOR SIGN DETAIL	-- x --	--	--	--
	MB3-4	II	WEST	30 x 18	--	--	--	--	--	--	--	--	--	-- x --	--	--	--
	M1-1	II	[94]	36 x 36	--	--	--	--	--	--	--	--	--	-- x --	--	--	--
	M3-1	II	NORTH	30 x 18	--	--	--	--	--	--	--	--	--	-- x --	--	--	--
	M1-4	II	[41]	36 x 36	--	--	--	--	--	--	--	--	--	-- x --	--	--	--
49	M1-94	II	HWY C	54 x 21	7.880	--	--	1	2	2	--	--	--	-- x --	--	--	--
50	M1-94	II	HWY C	54 x 21	7.880	--	--	1	2	2	--	--	--	-- x --	--	--	--
51	--	I	[EXIT 333] [20] RACINE MT PLEASANT	-- x --	--	--	--	--	--	--	--	--	--	-- x --	--	1	2
52	E6-1	I	[20] RACINE [ARROW] MT PLEASANT	-- x --	--	--	--	--	--	--	--	--	MOUNT ON S-51-28	19 x 10	190.00	--	--
52A	E1-5	I	EXIT 333	-- x --	--	--	--	--	--	--	--	--	--	11 x 2.5	27.50	--	--

TYPE I&II PERMANENT SIGNING -

CATEGORY CODE 1000

SIGN NO.	SIGN CODE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W x H [IN.] x [IN.]	637.2210 SIGNS REFLC 'H' TYPE II [SF]	637.2230 SIGNS REFLC "F" TYPE II [SF]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	634.0618 POSTS WOOD 4"X 6"x18' [EA]	634.0885 POSTS TUBULAR STEEL 2"X2"X8.5' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS	TYPE I SIGN SIZE W x H [FT.] x [FT.]	637.1220 SIGNS REFLC 'SH' SHEETING TYPE I [SF]	638.2601 REM SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]
53	D10-5A	II	WEST (94 SHIELD) MILE 333 / 9	-- x --	--	--	--	1	1	--	--	--	--	-- x --	--	--	--
54	D10-5A	II	EAST (94 SHIELD) MILE 333 / 9	-- x --	--	--	--	1	--	--	--	--	--	-- x --	--	--	--
55	D10-5A	II	WEST (94 SHIELD) MILE 332 / 5	-- x --	--	--	--	1	1	--	--	--	--	-- x --	--	--	--
56	D10-5A	II	EAST (94 SHIELD) MILE 332 / 5	-- x --	--	--	--	1	--	--	--	--	--	-- x --	--	--	--
57	R2-1	II	SPEED LIMIT 65	-- x --	--	--	1	--	--	--	--	--	--	-- x --	--	--	--
58	D10-5	II	WEST (94 SHIELD) MILE 334 / 2	-- x --	--	--	1	--	1	--	1	--	MOUNTING ON TOP OF BARRIER WALL INCIDENTAL	-- x --	--	--	--
59	D10-5	II	EAST (94 SHIELD) MILE 334 / 2	-- x --	--	--	1	--	--	--	--	--	--	-- x --	--	--	--
60	D10-5	II	WEST (94 SHIELD) MILE 334 / 1	-- x --	--	--	--	1	1	--	--	--	--	-- x --	--	-	--
61	D10-5	II	EAST (94 SHIELD) MILE 334 / 1	-- x --	--	--	--	1	--	--	--	--	--	-- x --	--	--	--
62	D10-5	II	WEST (94 SHIELD) MILE 334 / 0	-- x --	--	--	1	--	1	--	1	--	MOUNTING ON TOP OF BARRIER WALL INCIDENTAL	-- x --	--	--	--
63	D10-5	II	EAST (94 SHIELD) MILE 334 / 0	-- x --	--	--	1	--	--	--	--	--	--	-- x --	--	--	--
64	D10-5	II	WEST (94 SHIELD) MILE 332 / 4	-- x --	--	--	1	--	1	--	1	--	MOUNTING ON TOP OF BARRIER WALL INCIDENTAL	-- x --	--	--	--
65	D10-5	II	EAST (94 SHIELD) MILE 332 / 4	-- x --	--	--	1	--	--	--	--	--	--	-- x --	--	--	--
66	D10-5	II	WEST (94 SHIELD) MILE 332 / 3	-- x --	--	--	--	1	1	--	--	--	--	-- x --	--	--	--
67	D10-5	II	EAST (94 SHIELD) MILE 332 / 3	-- x --	--	--	--	1	--	--	--	--	--	-- x --	--	--	--
TOTAL					269.76*	68.000	7	45*	38*	19*	9				435.00	2	4

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CATEGORY 1100
LIGHTING BRANCH CIRCUIT WIRE QUANTITIES - ISOLATED NEUTRAL SYSTEM
240/480 VAC 3-WIRE

652.0225 CONDUIT RIGID NONMETALIC SCHEDULE 40 2-INCH
652.0235 CONDUIT RIGID NONMETALIC SCHEDULE 40 3-INCH
652.0615 CONDUIT SPECIAL 3-INCH
655.0620 ELECTRICAL WIRE LIGHTING 8 AWG

SYSTEM	NETWORK	LOCATION TO LOCATION	DISTANCE	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF
HL-51-RZ	A/B/N/G	HL-51-RZ TO LPB101	20	--	20	--	160
HL-51-RZ	A/B/N/G	LPB101 TO LPB102	175	--	--	175	740
HL-51-RZ	A/B/N/G	LPB102 TO UDL - JUNCTION BOX	40	40	--	--	180
		TOTAL (1100)		40	20	175	1,080

CATEGORY 1100
LIGHTING SYSTEM ITEMS

SPV.0105.1002 LIGHTING SYSTEM INTEGRATOR
SPV.0105.1003 LIGHTING SYSTEM SURVEY

SYSTEM	LOCATION	SPV.0105.1002 LIGHTING SYSTEM INTEGRATOR	SPV.0105.1003 LIGHTING SYSTEM SURVEY
		LS	LS
HL-51-RZ	IH 94 / STH 20 IC	1	1
	TOTAL (1100)	1	1

3

CATEGORY 1100
DISTRIBUTION CENTER QUANTITIES
240/480 VAC 3-WIRE

655.0640 ELECTRICAL WIRE LIGHTING 1 AWG
656.0200.0001 ELECTRICAL SERVICE METER BREAKER PEDESTAL (HL-51-RZ)
659.0802 PLAQUES SEQUENCE IDENTIFICATION
SPV.0060.1000 CONCRETE CONTROL CABINET BASES SPECIAL
SPV.0060.1001 LIGHTING CONTROL CABINET

CABINET	LOCATION	655.0640 ELECTRICAL WIRE LIGHTING 1 AWG	656.0200.0001 ELECTRICAL SERVICE METER BREAKER PEDESTAL (HL-51-RZ)	659.0802 PLAQUES SEQUENCE IDENTIFICATION	SPV.0060.1000 CONCRETE CONTROL CABINET BASES SPECIAL	SPV.0060.1001 LIGHTING CONTROL CABINET
		LF	LS	EACH	EACH	EACH
HL-51-RZ	297+70, 125' RT (STH 20)	18	1	4	1	1
	TOTAL (1100)	18	1	4	1	1

DISTRIBUTION CENTER PLAQUES
(2) - ANSI PLAQUES - 480 VAC WARNING (2 REQUIRED PER LOCATION; METER PEDESTAL AND CABINET DOOR)
(1) - HL-51-RZ
(1) - STH 120

CATEGORY 1100
UNDERDECK LIGHTING QUANTITIES
240/480 VAC 3-WIRE
SPV.0105.1001 UNDERDECK LIGHTING SPECIAL (STH 20)

SYSTEM	NETWORK	LOCATION STRUCTURE B-51-129/130	SPV.0105.1001 UNDERDECK LIGHTING SPECIAL (STH 20) LS
HL-51-RZ	A/B/RZ	STH 20	1
		TOTAL (1100)	1

CATEGORY 1100
LIGHTING PULL BOX AND JUNCTION BOXES QUANTITIES

653.0140 PULL BOXES STEEL 24x42-INCH

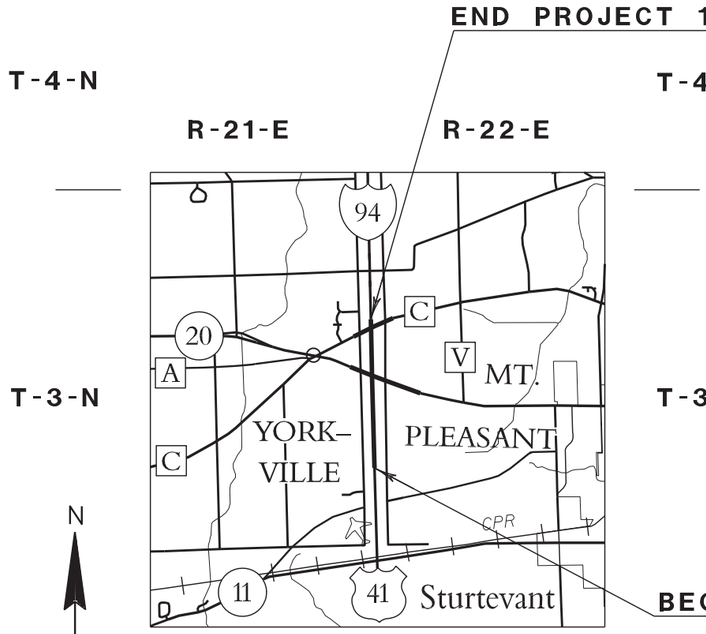
SYSTEM	STATION	OFFSET	LABEL	653.0140 PULL BOXES STEEL 24x42-INCH EACH
HL-51-RZ	297+35	130' RIGHT	LPB101	1
HL-51-RZ	295+53	85' RIGHT	LPB102	1
			TOTAL (1100)	2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 1033-02-20
INTERSTATE 94
STH 20 INTERCHANGE
RACINE COUNTY





YORKVILLE R-21-E

MT. PLEASANT R-22-E

RACINE COUNTY

LAYOUT

SCALE 0 1 MILE

THE NOTES, CONVENTIONAL SYMBOLS, AND VARIOUS ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT OF PROJECT 1033-02-20.

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT. RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLE EASEMENTS ARE TO TERMINATE UPON THE COMPLETION OF THIS PROJECT OR ON THE DAY THE HIGHWAY IS OPEN TO THE TRAVELING PUBLIC, WHICHEVER IS LATER.

A **PERMANENT LIMITED EASEMENT** (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT	AP	RELEASE OF RIGHTS	ROR
ACCESS RIGHTS	AR	REMAINING	REM.
ACRES	AC.	RIGHT-OF-WAY	R/W
AND OTHERS	ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
CONVEYANCE OF RIGHTS	CR		
DOCUMENT	DOC.		
EASEMENT	EASE.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	⌀ (1" UNLESS NOTED)	PROPOSED R/W LINE	
		EXISTING H.E. LINE	
R/W MONUMENT	●(SET)	PROPERTY LINE	
R/W STANDARD	▲(SET)	LOT & TIE LINES	
SIGN	ISIGN	SLOPE INTERCEPTS	
SECTION CORNER MONUMENT	◍	CORPORATE LIMITS	
SECTION CORNER SYMBOL		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
FEE (HATCH VARIES)		NO ACCESS (BY ACQUISITION)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
PERMANENT LIMITED EASEMENT		SECTION LINE	
R/W BOUNDARY POINT	RWB20	QUARTER LINE	
PARCEL NUMBER	02	SIXTEENTH LINE	
SIGN NUMBER (OFF PREMISE)	21	EXISTING CENTERLINE	
BUILDING		PROPOSED REFERENCE LINE	
		PARALLEL OFFSET	

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD TRANSMISSION LINES	OH
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS

	NON COMPENSABLE	COMPENSABLE
POWER POLE	○	●
TELEPHONE POLE	⌀	⌀
TELEPHONE PEDESTAL	⌑	⌑
ELECTRIC TOWER	⊠	

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

TPP NUMBER 1033-02-20-4.01
SHEET 2 OF 2

DOC # 2202146
Recorded
Feb. 18, 2009 AT 01:23PM
VOL. 1 P. 73
James A. Ladwig
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 25.00

FILE NAME : J:\projects\d2_r_10330294\040400_rp.dgn PLOT DATE : 10-FEB-2009 11:13 PLOT BY : dotphk PLOT NAME : PLOT SCALE : 100.000000:1.000000

CONST. 1033-20-70 STH 20 R/W 1033-02-20 4.00

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.01

THAT PART OF THE NW1/4 OF THE SW1/4, SECTION 18, TOWN 3 NORTH, RANGE 22 EAST, VILLAGE OF MT. PLEASANT, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES NEW	R/W REQUIRED ACRES EXISTING	R/W REQUIRED ACRES TOTAL	T.L.E. TEMP. ACRES
1	MLG/HWY 20	Fee AR	0.320	0.000	0.320	0.000
2	WOODSTOCK GROUP	Fee AR	0.122	0.000	0.122	0.000
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
108	TOWN OF YORKVILLE	ROR	- -	- -	- -	- -

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	I 101-1(3)	VARIES	1956
EAST FRONTAGE ROAD	1032-06-29	VARIES	1989

I-94
PI STA 839+47.69
Y 183216.67
X 594019.87
PC STA 834+61.20
PT STA 844+34.17
DELTA 0°19'28"
D 0°02'00"
L 972.97
R 171881.34
LCH 972.97
LCB N 00°17'27" W

A Cast Iron Monument w/ A Brass Cap
Y 181012.86
X 591458.89

A Cast Iron Monument w/ A Brass Cap
Y 181033.47
X 594106.88

A Concrete Monument w/ A Brass Cap
Y 183658.74
X 591455.76

A Concrete Monument w/ A Brass Cap
Y 183686.18
X 594100.16

A Cast Iron Monument w/ A Brass Cap
Y 183628.16
X 596604.26

SOUTH PROJECT LIMITS

69.75'

STA 817+63.88

N89° 33' 14"E 2578.32'

2652.71'

820 825 830 EXISTING ℄ I-94 835 840

N00°27'11"W ℞ I-94

6'

PI 839+47.69

N89°24'20"E 2563.20'

STA 844+16.35

81.34'

N00°08'43"W

PC 834+61.20

245'

NO ACCESS, SEE PROJ. I 101-1(3)

SEE TPP 1033-02-20-4.02

S88°40'22"E 2504.78'

SEE TPP 1033-02-20-4.02

1AP

N35°37'26"E 3835.42

PC 3836+42.61

60.00° 50.00'

FRM505 FRM506 FRM507 FRM508 FRM509 FRM510 FRM511 FRM512 FRM513 FRM514 FRM515 FRM516 FRM517 FRM518 FRM519 FRM520 FRM521 FRM522 FRM523 FRM524 FRM525 FRM526 FRM527 FRM528 FRM529 FRM530 FRM531 FRM532 FRM533 FRM534 FRM535 FRM536 FRM537 FRM538 FRM539 FRM540 FRM541 FRM542

PL

L 556.18
R 894.93
LCH 547.27
LCB S 17°49'11" W

PT 3842+36.09
60.00'

3843+50.00
60.00'

594.69'

3840

℞ EAST FRONTAGE ROAD

S05°41'42"E 65.21'

52.21'

N00°00'55"E 60.02'

STA 3844+00.46

163.01'

1784.86'

L 115.26
R 1024.93
LCH 115.20
LCB N 32°24'07" E

PI 3839+49.28

3842+36.08
60.00'

L 516.62
R 1014.93
LCH 511.06
LCB N 14°35'52" E

PARCEL 1
CSM 1301
V 4 P 100

(100) V. 2301 P. 39 DOC. 1437519 PCL. 1

(101) NO RECORDED EASEMENT PCL. 1

(103) V 2301 P 41 DOC. 1437519 PCL. 1

VILLAGE OF MOUNT PLEASANT

NW1/4-SW1/4

T-3-N R-21-E R-22-E YORKVILLE MT. PLEASANT RACINE COUNTY

SHEET LOCATION

EAST FRONTAGE ROAD
PI STA 3839+49.28
Y 183199.84
X 594759.75
PC STA 3836+42.61
PT STA 3842+36.09
DELTA -35°36'31"
D 06°00'00"
L 593.47
R 954.93
LCH 583.97
LCB N 17°49'10" E

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 2/10/09 Name: Robert Duffek Title:

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 2/10/09 Name: Paul Krause

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.01
SHEET 1 OF 2
AMENDMENT NO:

DOC # 2202146
Recorded
Feb. 18, 2009 AT 01:23PM
VOL. 1 P. 72
James A. Ladwig
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Recvd: $25.00

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

SCALE, FEET
0 100 200

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

FILE NAME : C:\Users\P\D2\10330200\STH20\CadLinks\040401_rp.dgn PLOT DATE : 10-FEB-2009 11:28 PLOT BY : dotphk PLOT NAME : PLOT SCALE : 100.000000:1.000000
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.01

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.01
AMENDMENT NO: 1

VACATES PARCEL 108 OF TPP 1033-02-20-4.01, RECORDED AS DOCUMENT 2202146.

THAT PART OF THE NW1/4 OF THE SW1/4, SECTION 18, TOWN 3 NORTH, RANGE 22 EAST, VILLAGE OF MT. PLEASANT, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES NEW	R/W REQUIRED ACRES EXISTING	R/W REQUIRED ACRES TOTAL	T.L.E. TEMP. ACRES
1	MLG/HWY 20	Fee AR	0.320	0.000	0.320	0.000
2	WOODSTOCK GROUP	Fee AR	0.122	0.000	0.122	0.000
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	1101-1(3)	VARIES	1956
EAST FRONTAGE ROAD	1032-06-29	VARIES	1989

A Cast Iron Monument
w/ A Brass Cap
Y 181012.86
X 591458.89

A Cast Iron Monument
w/ A Brass Cap
Y 181033.47
X 594106.88

A Concrete Monument
w/ A Brass Cap
Y 183658.74
X 591455.76

A Concrete Monument
w/ A Brass Cap
Y 183686.18
X 594100.16

A Cast Iron Monument
w/ A Brass Cap
Y 183628.16
X 596604.26

N89° 33' 14"E 2578.32'

SOUTH PROJECT LIMITS

69.75'

STA 817+63.88

820 825 830 835 840

EXISTING ℄ I-94

N00°27'11"W ℞ I-94

6'

2652.71'

I-94
PI STA 839+47.69
Y 183216.67
X 594019.87
PC STA 834+61.20
PT STA 844+34.17
DELTA 0°19'28"
D 0°02'00"
L 972.97
R 171881.34
LCH 972.97
LCB N 00°17'27" W

PI 839+47.69

PC 834+61.20

N89°24'20"E 2563.20

STA 844+16.35

81.34'

N00°08'43"W

245'

NO ACCESS, SEE PROJ. 1101-1(3)

SEE TPP 1033-02-20-4.02

S88°40'22"E 2504.78

SEE TPP 1033-02-20-4.02

PRW505 PRW506 PRW507 PRW508

PT 3842+36.09 60.00'

3843+50.00 60.00'

L 556.18
R 894.93
LCH 547.27
LCB S 17°49'11" W

594.69'

S05°41'42"E 65.21'

52.21'

STA 3844+00.46

N00°00'55"E 60.02'

163.01'

1784.86'

SEE TPP 1033-02-20-4.02

PI 3839+49.28

3842+36.08 60.00'

PRW542

L 516.62
R 1014.93
LCH 511.06
LCB N 14°35'52" E

PC 3836+42.61 60.00' 50.00'

N35°37'26"E 50.

3835

3836+42.61

3835+00.00 100.00'

3837+00.00 100.00'

L 115.26
R 1024.93
LCH 115.20
LCB N 32°24'07" E

PRW501 PRW502 PRW503 PRW504

1AP

1

2

3840

50'

60'

℄ EAST FRONTAGE ROAD

PL

SW1/4-SW1/4

NW1/4-SW1/4

PARCEL 1
CSM 1301
V 4 P 100

(100) V. 2301 P. 39 DOC. 1437519 PCL. 1

(101) NO RECORDED EASEMENT PCL. 1

(103) V 2301 P 39 DOC. 1437519 PCL. 1

VILLAGE OF MT. PLEASANT

EAST FRONTAGE ROAD
PI STA 3839+49.28
Y 183199.84
X 594759.75
PC STA 3836+42.61
PT STA 3842+36.09
DELTA -35°36'31"
D 06°00'00"
L 593.47
R 954.93
LCH 583.97
LCB N 17°49'10" E

T-3-N R-21-E R-22-E
RACINE COUNTY
YORKVILLE MT. PLEASANT
R-21-E R-22-E
YORK-VILLE
PLEASANT MT.
Sturtevant
CPR
SHEET LOCATION

N

GN

SCALE, FEET
0 100 200

NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 11-18-2010 — D E Andersen
Name
Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 11-18-2010 — Paul Krause
Name PAUL KRAUSE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.01
SHEET 1 OF 2
AMENDMENT NO: 1

DOCUMENT # 2269383
RACINE COUNTY REGISTER OF DEEDS
November 24, 2010 4:21 PM
James A. Ladwig
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: $25.00
Pages 1
Vol 1 Pg 132

FILE NAME : J:\projects\d2_r_10330294\20\040401A1_rp.dgn
PLOT DATE : 18-NOV-2010 14:20
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.01 A1

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.02

THAT PART OF LOT 1 OF CSM 1983, LOT 1 OF CSM 1378, LOTS 1 AND 2 OF CSM 1627, PARCELS 1 AND 2 OF CSM 1818, AND THAT PART OF THE NW1/4 OF THE NW1/4 AND THE SW1/4 OF THE NW1/4, SECTION 18, TOWN 3 NORTH, RANGE 22 EAST, VILLAGE OF MT. PLEASANT, RACINE COUNTY, WISCONSIN

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	I 101-1(3)	VARIES	1956
I-94	DJ 2483	VARIES	1923
STH 20	F065-1(6)	VARIES	1963
EAST FRONTAGE ROAD	1032-06-29	VARIES	1989
EAST FRONTAGE ROAD	CSM 1378	60'	1988
HOSPITALITY COURT	CSM 1983	66'	1997
HOSPITALITY COURT	CSM 1783	66'	1995

I-94
PI STA 839+47.69
Y 183216.67
X 594019.87
PC STA 834+61.20
PT STA 844+34.17
DELTA 0°19'28"
D 0°02'00"
L 972.97
R 171881.34
LCH 972.97
LCB N 00°17'27" W

EAST FRONTAGE ROAD
PI STA 3851+87.15
Y 184457.58
X 594760.09
PC STA 3849+78.70
PT STA 3853+95.51
DELTA 2°59'07"
D 00°42'58"
L 416.81
R 8000.00
LCH 416.76
LCB N 01°28'38" W

EAST FRONTAGE ROAD
PI STA 3856+49.68
Y 184919.59
X 594736.12
PC STA 3855+29.74
PT STA 3857+65.35
DELTA 26°28'10"
D 11°14'04"
L 235.61
R 510.00
LCH 233.52
LCB N 10°15'53" E

CURVE 1
L 204.11
R 483.07
LCH 202.59
LCB N 09°08'04" E

CURVE 2
L 56.47
R 7579.44
LCH 56.47
LCB S 02°45'23" E

CURVE 3
L 367.35
R 7699.44
LCH 367.32
LCB N 01°36'53" W

CURVE 4
L 168.32
R 366.07
LCH 166.85
LCB N 10°18'49" E

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES NEW	R/W REQUIRED ACRES EXISTING	R/W REQUIRED ACRES TOTAL	T.L.E. TEMP. ACRES
1	MLG/HWY 20	Fee AR TLE	0.028	0.000	0.028	0.062
2	WOODSTOCK GROUP	Fee AR	0.030	0.000	0.030	0.000
3	HILIFE PROPERTIES	Fee AR TLE	0.037	0.000	0.037	0.088
4	RACINE HOTEL LLC	TLE	0.000	0.000	0.000	0.037
5	MC DONALDS	Fee AR TLE	0.007	0.000	0.007	0.223
6	CHARNICK LLC	Fee AR TLE	0.162	0.000	0.162	0.003
7	SHAH	Fee AR TLE	0.135	0.000	0.135	0.083
8	B&G REALTY	AR TLE	0.000	0.000	0.000	0.111
9	KWIK TRIP INC.	Fee AR TLE	0.147	0.000	0.147	0.460
10	CONVENIENCE STORE INV.	Fee TLE	0.174	0.000	0.174	0.155
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
108	TOWN OF YORKVILLE	ROR	- -	- -	- -	- -
109	VILLAGE OF MT. PLEASANT	ROR	- -	- -	- -	- -

A Concrete Monument w/ A Brass Cap Y 183658.74 X 591455.76

A Concrete Monument w/ A Brass Cap Y 183686.18 X 594100.16

A Concrete Monument w/ A Brass Cap Y 186347.14 X 594090.84

A Cast Iron Monument w/ A Brass Cap Y 183628.16 X 596604.26

SEE TPP 1033-02-20-4.06

SEE TPP 1030-02-20-4.01

SEE TPP 1033-02-20-4.03

STA 844+16.35

STA 294+10.29 STH 20 = STA 862+37.60 R I-94

STA 294+96.54

STA 3844+00.46

STA 303+05.91 STH 20 = STA 3858+95.98 E FR

N89°24'20"E 2644.53'

N00°07'43"W

2660.98' COR. TO COR. N00°12'02"W

N0°7'44"W

REBAR IP

NO ACCESS, SEE PROJ. 1032-06-29

NO ACCESS BY CSM

ACCESS BY DOC. 1344160

ACCESS BY DOC. 1588690

25' ACCESS EASE.

TLE SLOPES AND DRIVES

TLE SLOPES

TLE DRIVE

1/16 LINE

VILLAGE OF MT. PLEASANT

SW1/4-NW1/4

NW1/4-NW1/4

PARCEL 1

PARCEL 2

CSM 1818 V 5 P 534

CSM 1627 V 4 P 973

LOT 1 CSM 1983 V 6 P 61

LOT 1 CSM 1783 V 5 P 431

LOT 1

LOT 2

HOSPITALITY COURT

R NORTH BOUND EXIT RAMP

R EAST FRONTAGE ROAD

℄ EXISTING EAST FRONTAGE ROAD

℄ EXISTING I-94

DETAIL NOT TO SCALE

DETAILS NOT TO SCALE

SCALE, FEET 0 100 200

GN

NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

YORKVILLE R-21-E MT. PLEASANT R-22-E RACINE COUNTY T-3-N R-21-E R-22-E

SHEET LOCATION

(100) V. 2301 P. 39 DOC. 1437519 PCL. 1, 3, 4
V. 1954 P. 558 DOC. 1278847 PCL. 5
NO RECORDED EASEMENT PCL. 9,10

(101) NO RECORDED EASEMENT PCL. 1,3,4,9,10

(103) V. 2301 P. 41 DOC. 1437519 PCL. 1, 3, 4

(108) V. 4 P. 307 DOC. 1267827 PCL. 5
V. 5 P. 534 DOC. 1527180 PCL. 9

(109) DOC. 1969693 PCL. 1

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 3-18-09 Robert A Dreffs
Name
Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 3-18-09 Paul Krause
Name Paul Krause

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.02
AMENDMENT NO:

DOC # 2207205
Recorded
Mar. 27, 2009 AT 03:33PM
VOL. 1 P. 74
James A. Ladwig
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 25.00

FILE NAME : J:\projects\d2_r_10330294\040402_rp.dgn
APPRAISAL PLAT DATE : 02-19-09
PLOT DATE : 24-MAR-2009 08:01
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.02

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	I 101-1(3)	VARIES	1956
I-94	DJ 2483	VARIES	1923
STH 20	F065-1(6)	VARIES	1963
EAST FRONTAGE ROAD	1032-06-29	VARIES	1989
EAST FRONTAGE ROAD	CSM 1378	60'	1988
HOSPITALITY COURT	CSM 1983	66'	1997
HOSPITALITY COURT	CSM 1783	66'	1995

I-94
PI STA 839+47.69
Y 183216.67
X 594019.87
PC STA 834+61.20
PT STA 844+34.17
DELTA 0°19'28"
D 0°02'00"
L 972.97
R 171881.34
LCH 972.97
LCB N 00°17'27" W

EAST FRONTAGE ROAD
PI STA 3851+87.15
Y 184457.58
X 594760.09
PC STA 3849+78.70
PT STA 3853+95.51
DELTA 2°59'07"
D 00°42'58"
L 416.81
R 8000.00
LCH 416.76
LCB N 01°28'38" W

EAST FRONTAGE ROAD
PI STA 3856+49.68
Y 184919.59
X 594736.12
PC STA 3855+29.74
PT STA 3857+65.35
DELTA 26°28'10"
D 11°14'04"
L 235.61
R 510.00
LCH 233.52
LCB N 10°15'53" E

CURVE 1
L 204.11
R 483.07
LCH 202.59
LCB N 09°08'04" E

CURVE 2
L 56.47
R 7579.44
LCH 56.47
LCB S 02°45'23" E

CURVE 3
L 367.35
R 7699.44
LCH 367.32
LCB N 01°36'53" W

CURVE 4
L 168.32
R 366.07
LCH 166.85
LCB N 10°18'49" E

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.02 AMENDMENT NO: 1

ADDS UTILITY AGREEMENT NUMBER 209 AND PARCEL 107, AMENDS PARCELS 101, 103, 108, 109, AND PARCEL 10 IN THE SCHEDULE OF TPP 1033-02-20-4.02, RECORDED AS DOCUMENT 2207205.

THAT PART OF LOT 1 OF CSM 1983, LOT 1 OF CSM 1378, LOTS 1 AND 2 OF CSM 1627, PARCELS 1 AND 2 OF CSM 1818, AND THAT PART OF THE NW1/4 OF THE NW1/4 AND THE SW1/4 OF THE NW1/4, SECTION 18, TOWN 3 NORTH, RANGE 22 EAST, VILLAGE OF MT. PLEASANT, RACINE COUNTY, WISCONSIN

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLYAND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.			
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES
1	MLG/HWY 20	Fee AR TLE	0.028	0.000	0.028	0.062
2	WOODSTOCK GROUP	Fee AR	0.030	0.000	0.030	0.000
3	HILIFE PROPERTIES	Fee AR TLE	0.037	0.000	0.037	0.088
4	RACINE HOTEL LLC	TLE	0.000	0.000	0.000	0.037
5	MC DONALDS	Fee AR TLE	0.007	0.000	0.007	0.223
6	CHARNICK LLC	Fee AR TLE	0.162	0.000	0.162	0.003
7	SHAH	Fee AR TLE	0.135	0.000	0.135	0.083
8	B&G REALTY	AR TLE	0.000	0.000	0.000	0.111
9	KWIK TRIP INC.	Fee AR TLE	0.147	0.000	0.147	0.460
10	CONVENIENCE STORE INV.	Fee AR TLE	0.174	0.000	0.174	0.155
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
107	TIME WARNER CABLE	ROR	- -	- -	- -	- -
108	TOWN OF YORKVILLE SEWER	ROR	- -	- -	- -	- -
109	VILLAGE OF MT. PLEASANT SANITARY	ROR	- -	- -	- -	- -
UA209	VILLAGE OF MT. PLEASANT SANITARY	- -	- -	- -	- -	- -

A Concrete Monument w/ A Brass Cap Y 183658.74 X 591455.76

A Concrete Monument w/ A Brass Cap Y 183686.18 X 594100.16

A Cast Iron Monument w/ A Brass Cap Y 183628.16 X 596604.26

A Concrete Monument w/ A Brass Cap Y 186347.14 X 594090.84

SEE TPP 1033-02-20-4.06

SEE TPP 1033-02-20-4.01

SEE TPP 1033-02-20-4.03

STA 844+16.35

STA 844+34.17

STA 294+96.54

STA 294+10.29 STH 20 = STA 862+37.60 R I-94

STA 3844+00.46

STA 303+05.91 STH 20 = STA 3858+95.98 E FR

N89°24'20"E 2644.53'

S89°48'00"W

S88°40'22"E 436.98'

S88°40'22"E 454.88'

S00°13'07"E 1329.98'

S00°13'07"E 1176.95'

S05°41'42"E 65.21'

S56°22'21"E 566.38'

S56°22'21"E 556.47'

N00°07'43"W

N00°12'02"W

N00°07'44"W

N00°34'54"W

N02°58'12"W

N00°00'55"E

N12°45'44"W

S10°01'45"W

N23°35'50"E

N23°29'58"E

N68°36'45"E

N68°19'9"E

S66°38'40"E

N01°35'25"E

N86°12'10"W

S88°48'00"W

N00°07'43"W

N06°40'17"W

S00°07'56"E

REBAR IP

JP

IP

PK

PI

PC

PT

CURVE 1

CURVE 2

CURVE 3

CURVE 4

R/W I-94

℄ EXISTING I-94

℄ EXISTING EAST FRONTAGE ROAD

℄ NORTH BOUND EXIT RAMP

℄ TLE DRIVE

℄ TLE SLOPES

℄ ACCESS BY DOC.1344160

℄ NO ACCESS BY CSM

℄ 1/16 LINE

℄ 25' ACCESS EASE.

℄ 2AP

℄ 1AP

℄ SAN

℄ 6'

℄ 21'

℄ 50'

℄ 60'

℄ 66'

℄ 75'

℄ 99'

℄ 100'

℄ 245'

℄ 305'

℄ 101'

℄ 55'

℄ 80.37'

℄ 14.28'

℄ 15.06'

℄ 81.34'

℄ 15.71'

℄ 58.72'

℄ 148.78'

℄ 299.20'

℄ 545.80'

℄ 271.20'

℄ 201.32'

℄ 326.44'

℄ 400.97'

℄ 146.43'

℄ 129.41'

℄ 65.00'

℄ 60.02'

℄ 36.21'

℄ 21.17

℄ 860.00'

℄ 349.50'

℄ 235.21'

℄ 157.73

℄ 175.20'

℄ 178.78'

℄ 202.00'

℄ 130.00'

℄ 120.00'

℄ 90.00'

℄ 80.00'

℄ 79.13'

℄ 89.29'

℄ 53.42'

℄ 48.57'

℄ 48.00'

℄ 57.60'

℄ 59.85'

℄ 46.28'

℄ 24.64'

℄ 47.80'

℄ 55.00'

℄ 60.00'

℄ 110.00'

℄ 100.00'

℄ 55.00'

℄ 141.18

℄ 140.60

PARCEL 1

PARCEL 2

LOT 1 CSM 1983 V 6 P 61

LOT 1 CSM 1783 V 5 P 431

LOT 2

LOT 1

CSM 1818 V 5 P 534

CSM 1627 V 4 P 973

CSM 1378 V 4 P 307 DOC. 1267827

LOT 1 CSM 1378 V 4 P 307 DOC. 1270280 AFFIDAVIT OF CORRECTION DOC. 1270280

SW1/4-NW1/4

NW1/4-NW1/4

VILLAGE OF MT. PLEASANT

HOSPITALITY COURT

NO ACCESS, SEE PROJ. 1032-06-29

TLE SLOPES AND DRIVES

TLE SLOPES

TLE DRIVE

DETAIL NOT TO SCALE

DETAILS NOT TO SCALE

PRW599 PRW600 PRW556 PRW517 PRW518 PRW519 PRW520 PRW521 PRW514 PRW515 PRW544 PRW350 PRW510

PI 298+15.83 Y 185345.81 X 594387.03

PI 385+98.73 Y 185345.81 X 594387.03

PI 303+77.46 Y 185345.81 X 594387.03

PI 308+03.99 Y 185345.81 X 594387.03

PI 304+00 Y 185345.81 X 594387.03

PI 307+50.00 Y 185345.81 X 594387.03

PI 302+02.17 Y 185345.81 X 594387.03

PI 301+78.99 Y 185345.81 X 594387.03

PI 299+34.80 Y 185345.81 X 594387.03

PI 298+28.82 Y 185345.81 X 594387.03

PI 385+98.73 Y 185345.81 X 594387.03

PI 385+17.65 Y 185345.81 X 594387.03

PI 385+80.00 Y 185345.81 X 594387.03

PI 385+90.00 Y 185345.81 X 594387.03

PI 385+70.88 Y 185345.81 X 594387.03

PI 385+80.00 Y 185345.81 X 594387.03

1033-02-20-404

1/16 LINE

YORKVILLE MT. PLEASANT R-21-E R-22-E RACINE COUNTY

R-21-E T-3-N R-22-E

SHEET LOCATION

(100) V. 2301 P. 39 DOC. 1437519
PCL. 1, 3, 4
V. 1954 P. 558 DOC. 1278847
PCL. 5
NO RECORDED EASEMENT
PCL. 9, 10

(101) NO RECORDED EASEMENT
PCL. 1,3

(103) V. 2301 P. 39 DOC. 1437519
PCL. 1, 3, 4
NO RECORDED EASEMENT
PCL. 10

(107) NO RECORDED EASEMENT
PCL. 4

(108) V. 1655 P. 991 DOC. 1111817
PCL. 1, 5, 7, 8

(109) DOC. 1969693
PCL. 1
CSM 1378 V. 4 P. 307 DOC. 1267827
PCL. 5
CSM 1818 V. 5 P. 534 DOC. 1527180
PCL. 8, 9
NO RECORDED EASEMENT
PCL. 10

NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT. BY SE REGION DOT SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

SCALE, FEET
0 100 200

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.02
AMENDMENT NO: 1

DOCUMENT # 2269384
RACINE COUNTY REGISTER OF DEEDS
November 24, 2010 4:22 PM
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: $25.00
Pages: 1
Vol 1

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 11-18-2010 — Name A E Andersen — Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 11-18-2010 — Name PAUL KRAUSE

FILE NAME : J:\projects\d2_r_10330294\20\040402A1_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 18-NOV-2010 14:21 PLOT BY : dotphk PLOT NAME : PLOT SCALE : 100.000000:1.000000
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.02A1

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.03

THAT PART OF THE SE1/4 OF THE SE1/4 AND THE NE1/4 OF THE SE1/4, SECTION 18, TOWN 3 NORTH, RANGE 22 EAST, VILLAGE OF MT. PLEASANT, RACINE COUNTY, WISCONSIN.

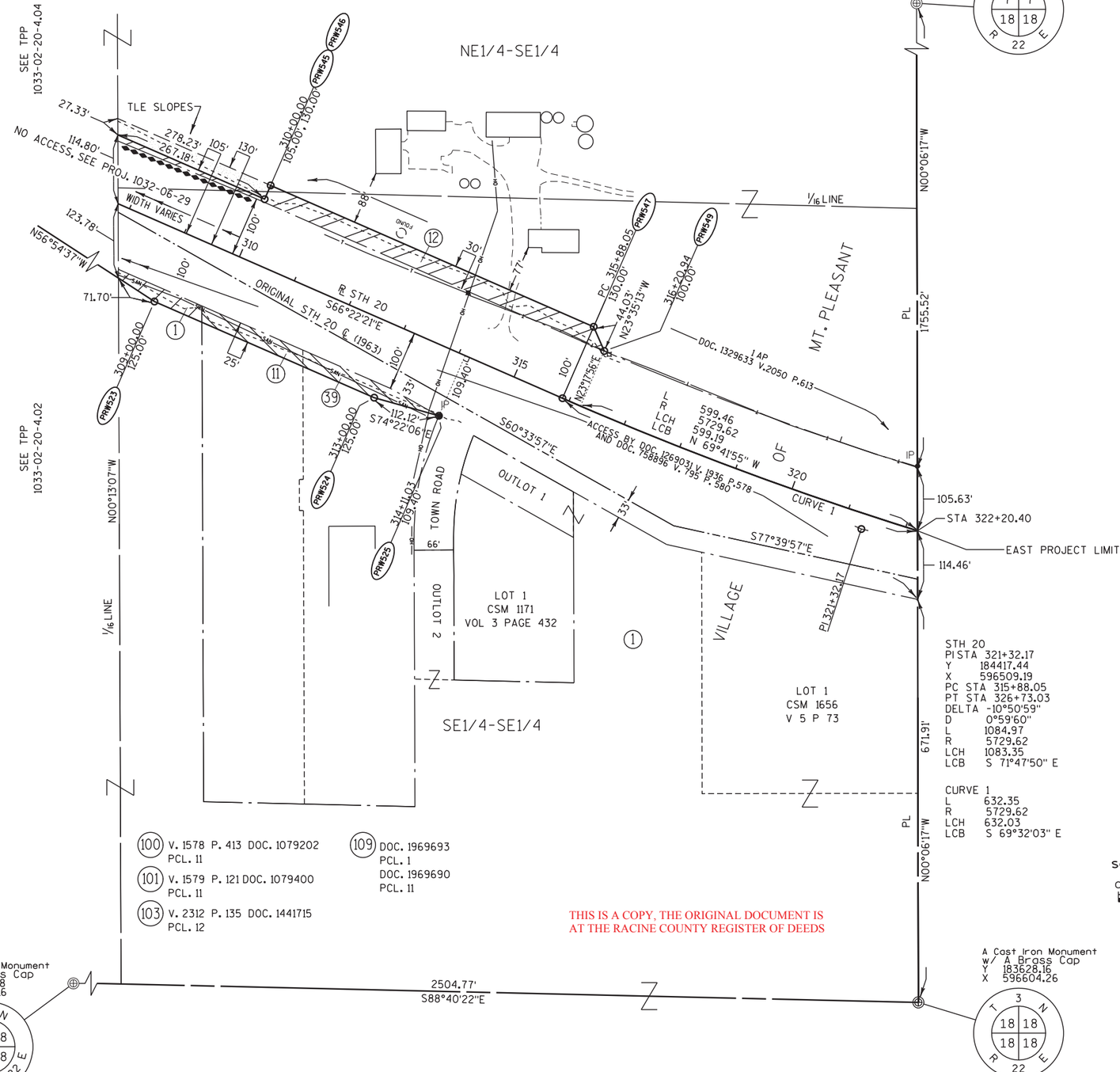
RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES			T.L.E. TEMP. ACRES
			NEW	EXISTING	TOTAL	
1	MLG/HWY 20	Fee	0.078	0.000	0.078	0.000
11	MT. PLEASANT GROUP LLC	Fee	0.105	0.000	0.105	0.000
12	HENRY J. KUIPER	Fee TLE	0.459	0.000	0.459	0.157
39	MT. PLEASANT GROUP LLC	Fee	0.111	0.000	0.111	0.000
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
109	VILLAGE OF MT. PLEASANT	ROR	- -	- -	- -	- -

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
STH 20	F065-1(6)	VARIES	1963
TOWN ROAD	CSM 1171	66'	1986

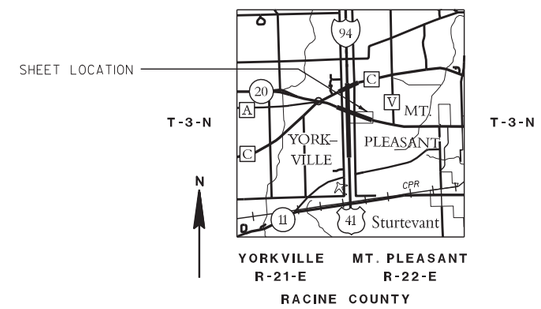


STH 20
PISTA 321+32.17
Y 184417.44
X 596509.19
PC STA 315+88.05
PT STA 326+73.03
DELTA -10°50'59"
D 0°59'60"
L 1084.97
R 5729.62
LCH 1083.35
LCB S 71°47'50" E

CURVE 1
L 632.35
R 5729.62
LCH 632.03
LCB S 69°32'03" E

GN

SCALE, FEET
0 100 200



NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 3-18-09 Robert D. Duffek
Name
Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

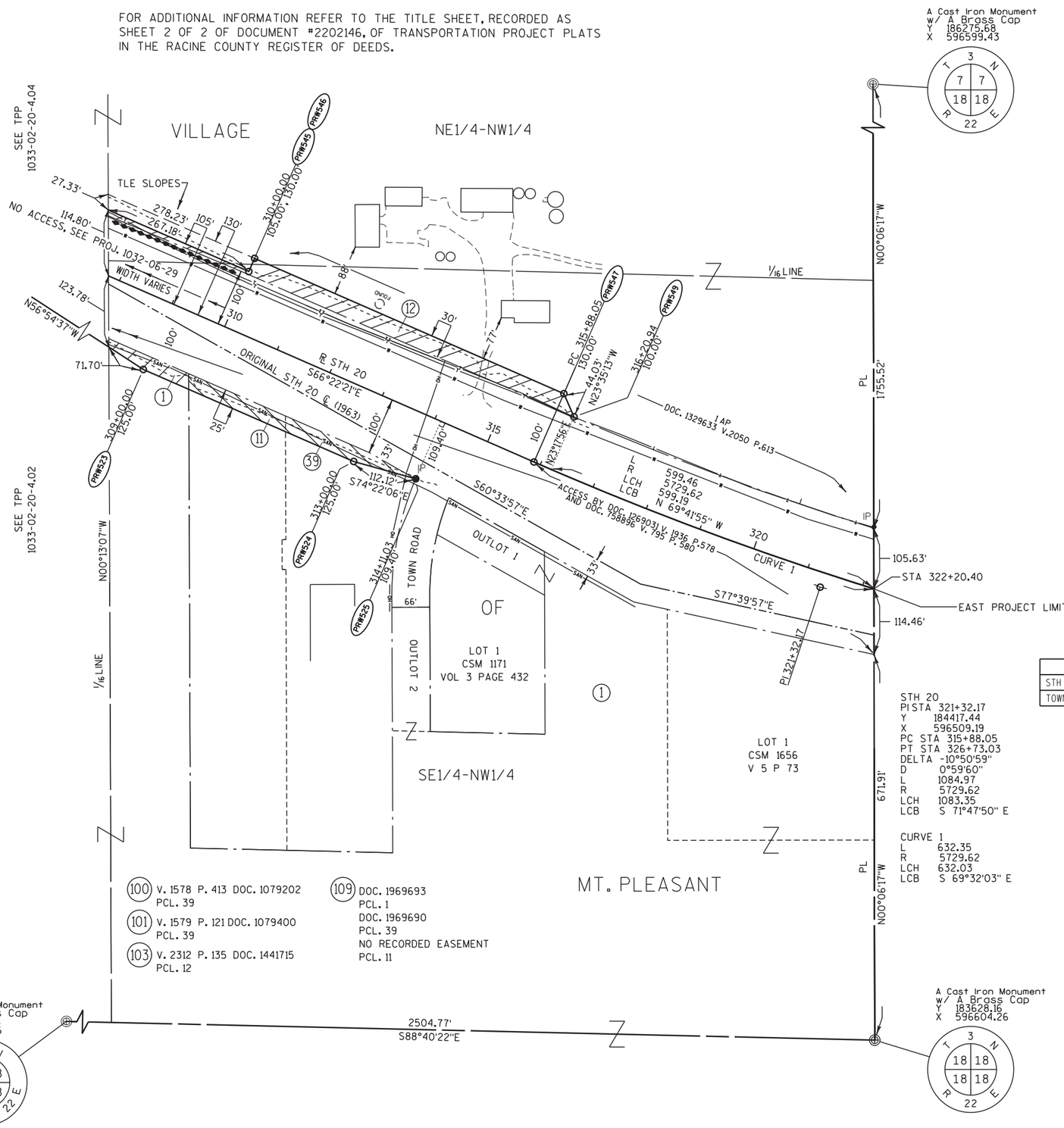
DATE: 3-18-09 Paul Krause
Name Paul Krause

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.03
AMENDMENT NO:

DOC # 2207206
Recorded
Mar. 27, 2009 AT 03:37PM
VOL. 1 P. 75
James A. Ladwig
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 125.00

FILE NAME : J:\projects\d2_r_10330294\040403_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 17-MAR-2009 13:07
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.03

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.



TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.03 AMENDMENT NO: 1

ADDS UTILITY AGREEMENT NUMBER 210 AND AMENDS PARCELS 100, 101, AND 109 OF TPP 1033-02-20-4.03, RECORDED AS DOCUMENT 2207206.

THAT PART OF THE SE1/4 OF THE NW1/4 AND THE NE1/4 OF THE NW1/4, SECTION 18, TOWN 3 NORTH, RANGE 22 EAST, VILLAGE OF MT. PLEASANT, RACINE COUNTY, WISCONSIN.

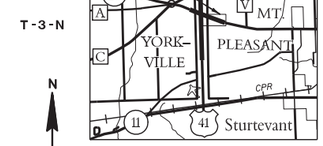
RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
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SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLYAND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES
1	MLG/HWY 20	Fee	0.078	0.000	0.078	0.000
11	MT. PLEASANT GROUP LLC	Fee	0.105	0.000	0.105	0.000
12	HENRY J. KUIPER	Fee TLE	0.459	0.000	0.459	0.157
39	MT. PLEASANT GROUP LLC	Fee	0.111	0.000	0.111	0.000
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
109	VILLAGE OF MT. PLEASANT SANITARY	ROR	- -	- -	- -	- -
UA210	RACINE WATER UTILITY	- -	- -	- -	- -	- -

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
STH 20	F065-1(6)	VARIES	1963
TOWN ROAD	CSM 1171	66'	1986



GN

SCALE, FEET
0 100 200

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 11-18-2010 — Name: OE Andersen — Title:

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 11-18-2010 — Name: PAUL KRAUSE — Paul Krause

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.03
AMENDMENT NO: 1

DOCUMENT # 2269385
RACINE COUNTY REGISTER OF DEEDS
November 24, 2010 4:22 PM
James A. Ladwig
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: $25.00
Pages: 1
Vol 1 Pg

FILE NAME : J:\projects\d2_r_10330294\20\040403A1_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 18-NOV-2010 14:22
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.03A1

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.04

THAT PART OF LOT 1 OF CSM 1993, LOT 1 OF CSM 1536 AND THAT PART OF THE NE1/4 OF THE NW1/4 AND THE NW1/4 OF THE NW1/4, SECTION 18, TOWN 3 NORTH, RANGE 22 EAST, VILLAGE OF MT. PLEASANT, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

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NOTES:

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RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

SCALE, FEET 0 100 200

I-94
PI STA 867+54.65
Y 186023.63
X 594013.56
PC STA 863+23.06
PT STA 871+86.23
DELTA 00°21'35"
D 00°02'30"
L 863.17
R 137503.87
LCH 863.17
LCB N 00°03'04" E

RELOCATED EAST FRONTAGE ROAD
PI STA 5868+01.25
Y 185995.04
X 595190.70
PC STA 5862+95.66
PT STA 5871+80.03
DELTA 69°24'45"
D 7°50'55"
L 884.38
R 730.00
LCH 831.28
LCB N 11°06'33" W

A Concrete Monument w/ A Brass Cap
Y 183686.18
X 594100.16

A Concrete Monument w/ A Brass Cap
Y 186347.14
X 594090.84

A Cast Iron Monument w/ A Brass Cap
Y 186275.68
X 596599.43

STA 294+10.29 STH 20 = STA 862+37.60 ℄ I-94
SEE TPP 1033-02-20-4.08
PI 867+54.65
STA 870+77.41
EXISTING ℄ I-94
℄ I-94
STA 294+96.54
1786.22'
N00°07'43"W
N00°12'02"W 874.76'
PC 863+23.06
VILLAGE OF MT. PLEASANT
℄ NORTH BOUND ON RAMP
NO ACCESS, SEE PROJ. 1101-1(3)
℄ EXISTING EAST FRONTAGE ROAD
N13°26'24"W 247.51'
2+68.56 219.48'
PRW554
IP
SEE TPP 1033-02-20-4.05
PI 867+54.65
S88°22'05"E 356.95'
NW1/4-NW1/4
PRW532
3+84.81 65.00'
3+82.00 50.00'
284.92'
297+30.49 120.41'
297+33.24 105.39'
PRW550
NO ACCESS, SEE PROJ. 1032-06-29
PI 298+16.83
X 185345.81
Y 594387.03
339.31' N12°58'57"E
SEE TPP 1033-02-20-4.02
TLE SLOPES
TLE SLOPES AND DRIVES
S66°22'21"E 439.61'
300' ℄ STH 20
PRW530 301+72.35 105.00'
PRW531 5860+49.40 60.00'
STA 302+92.40 STH 20 = STA 5858+84.34 E FR
PRW534 5860+36.13 60.00'
PRW533 304+00.00 105.00'
5+50.00 60.00' PRW552
PRW515
PT 5871+80.03 60.00'
55.68'
S88°48'55"W
117.34'
N45°48'55"W
STA 5871+49.26
108.09'
PRW522
PRW551
8+94.05 60.00'
8+44.00
S66°23'43"E
471.94
L 650.00
R 461.65
LCH N 25°00'54" W
LCB
171.86'
N08°24'17"E
5866+50.00 80.00'
5870
5870+42.42
℄ RELOCATED EAST FRONTAGE ROAD
853.61
R 730.00
LCH 805.80
LCB N 09°54'07" W
112.00'
N17°10'25"W
5868+00.00 80.00'
L 310.96
R 810.00
LCH 309.05
LCB S 26°59'08" E
PRW527
PRW556
PI 5868+01.25
1642.31'
PL
1/16 LINE
SEE TPP 1033-02-20-4.03
NE1/4-NW1/4
NO0°13'07"W
114.80'
NO0°13'07"W 27.33'
307+79.23
307+32.82
PRW537
5862+95.65 60.00'
PRW535
PRW536
5862+09.52 90.00'
PRW538
PRW553 11+02.94 31.00'
26.72' S21°05'19"E
13+13.18 85.00'
13+14.20 45.68'
13+27.70 50.00'
13+29.20 45.45'
LOT 1 CSM 1536 VOL 4 PAGE 119
N20°44'05"E 100.12'
LOT 1 CSM 1993 V 6 P. 25
N23°35'50"E
N00°02'10"W 49.89'
CANOPY
SEE DETAIL A
SEE DETAIL B
SEE DETAIL C
KILBOURN DR.
N46°15'E
S66°23'43"E 41.27'
S66°23'43"E 175.10'
S66°23'43"E 243.55'
S66°23'43"E 95.46'
S66°23'43"E 339.43'
S66°23'43"E 203.82'
S66°23'43"E 150.00'
S66°23'43"E 90.00'
S66°23'43"E 120.00'
S66°23'43"E 60.00'
S66°23'43"E 80.00'
S66°23'43"E 50.00'
S66°23'43"E 70.00'
S66°23'43"E 55.00'
S66°23'43"E 30.00'
S66°23'43"E 10.00'
S66°23'43"E 5.00'
S66°23'43"E 15.00'
S66°23'43"E 20.00'
S66°23'43"E 40.00'
S66°23'43"E 140.00'
S66°23'43"E 305.00'
S66°23'43"E 339.43'
S66°23'43"E 203.82'
S66°23'43"E 150.00'
S66°23'43"E 90.00'
S66°23'43"E 120.00'
S66°23'43"E 60.00'
S66°23'43"E 80.00'
S66°23'43"E 50.00'
S66°23'43"E 70.00'
S66°23'43"E 55.00'
S66°23'43"E 30.00'
S66°23'43"E 10.00'
S66°23'43"E 5.00'
S66°23'43"E 15.00'
S66°23'43"E 20.00'
S66°23'43"E 40.00'
S66°23'43"E 140.00'
S66°23'43"E 305.00'

L 94.25
R 60.00
LCH 84.85
LCB N 68°35'50" E

DETAIL NOT TO SCALE
S58°58'32"W 55.91'
S68°24'52"W 75.50'

DETAIL NOT TO SCALE
N21°53'28"W 35.09'
66.82' N21°53'28"W

DETAIL NOT TO SCALE
SIGN
N54°49'08"E 32.79'
10+81.11 49.35'

DETAIL B NOT TO SCALE

DETAIL C NOT TO SCALE

DETAIL A NOT TO SCALE
27.43' N37°57'07"W
31.25' S05°04'59"E
9+29.12 50.00'
5862+95.65 60.00'

(100) V. 2708 P. 40 DOC. 1607079
PCL. 13
V. 348 P. 200 DOC. 434853
PCL. 15, 16
V. 2179 P. 414 DOC. 1387882
PCL. 14
NO RECORDED EASEMENT
PCL. 12,13

(101) V. 348 P. 200 DOC. 434853
PCL. 15, 16

(103) V. 2312 P. 133 DOC. 1441715
PCL. 12, 13
V. 2708 P. 40 DOC. 1607079
PCL. 13
V. 2312 P. 136 DOC. 1441716
PCL. 15
V. 2179 P. 414 DOC. 1387882
PCL. 14
V. 2428 P. 710 DOC. 1492467
PCL. 14
V. 2699 P. 507 DOC. 1603756
PCL. 12

(108) V. 2090 P. 303 DOC. 1349538
PCL. 14, 15

(109) DOC. 1969715
PCL. 13
DOC. 1969714
PCL. 14
DOC. 1969713
PCL. 15

T-3-N
R-21-E
R-22-E
YORKVILLE
MT PLEASANT
R-21-E
R-22-E
RACINE COUNTY
Sturtevant
STH 20
MT. PLEASANT
SHEET LOCATION

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	I 101-1(3)	VARIES	1956
STH 20	F065-1(6)	VARIES	1963
EAST FRONTAGE ROAD	1032-06-29	VARIES	1989
KILBOURN DRIVE	CSM 1993	80'	1997

SCHEDULE OF LANDS & INTERESTS REQUIRED — OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.

PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES
12	KUIPER, HENRY J	Fee AR TLE	2.823	0.000	2.823	0.191
13	HWY 20 LLC	Fee AR TLE	0.102	0.000	0.102	0.410
14	SPIRIT MASTER FUNDING II LLC	Fee AR TLE	0.097	0.000	0.097	0.238
15	MEURER TRUST	Fee TLE	0.333	0.000	0.333	0.250
16	LV 20 LLC	Fee AR	0.373	0.000	0.373	0.000
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
108	TOWN OF YORKVILLE	ROR	- -	- -	- -	- -
109	VILLAGE OF MT. PLEASANT	ROR	- -	- -	- -	- -

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 3-18-09 Robert J. Duffek
Name
Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 3-18-09 Paul Krause
Name Paul Krause

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.04
AMENDMENT NO:

DOC # 2207207
Recorded
Mar. 27, 2009 AT 03:38PM
VOL. 1 P. 76
James A. Ladwig
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 425.00

FILE NAME : J:\projects\d2_r_10330294\040404_rp.dgn
APPRAISAL PLAT DATE : 02-26-09
PLOT DATE : 24-MAR-2009 08:02
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.04

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.04 AMENDMENT NO: 1

AMENDS PARCELS 13, 14, 100, 101 & ADDS PARCEL 112 OF TPP 1033-02-20-4.04, RECORDED AS DOCUMENT 2207207.

THAT PART OF LOT 1 OF CSM 1993, LOT 1 OF CSM 1536 AND THAT PART OF THE NE1/4 OF THE NW1/4 AND THE NW1/4 OF THE NW1/4, SECTION 18, TOWN 3 NORTH, RANGE 22 EAST, VILLAGE OF MT. PLEASANT, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

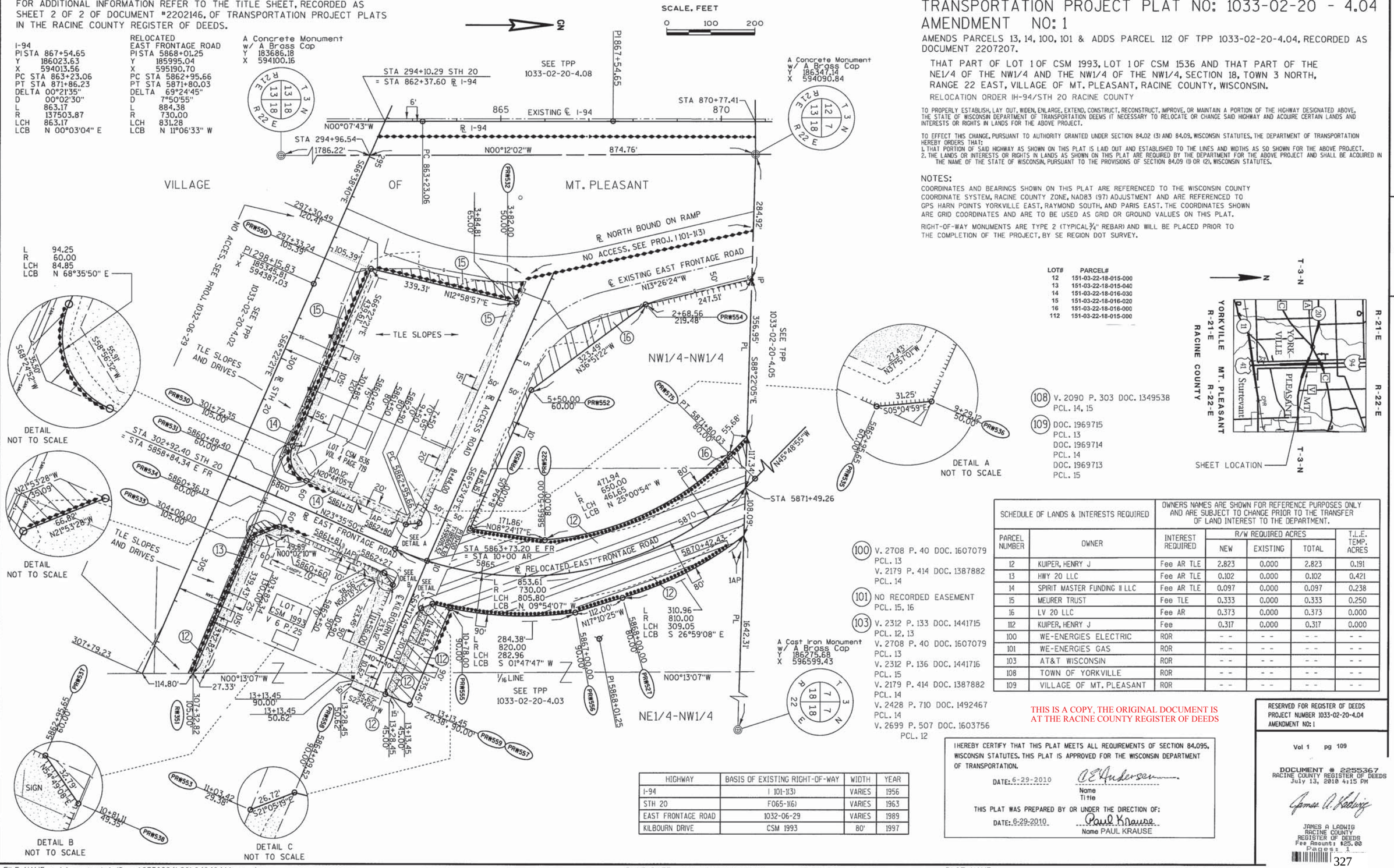
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.



LOT#	PARCEL#
12	151-03-22-18-015-000
13	151-03-22-18-015-040
14	151-03-22-18-016-030
15	151-03-22-18-016-020
16	151-03-22-18-016-000
112	151-03-22-18-015-000

(108) V. 2090 P. 303 DOC. 1349538 PCL. 14, 15

(109) DOC. 1969715 PCL. 13 DOC. 1969714 PCL. 14 DOC. 1969713 PCL. 15

(100) V. 2708 P. 40 DOC. 1607079 PCL. 13 V. 2179 P. 414 DOC. 1387882 PCL. 14

(101) NO RECORDED EASEMENT PCL. 15, 16

(103) V. 2312 P. 133 DOC. 1441715 PCL. 12, 13 V. 2708 P. 40 DOC. 1607079 PCL. 13 V. 2312 P. 136 DOC. 1441716 PCL. 15 V. 2179 P. 414 DOC. 1387882 PCL. 14 V. 2428 P. 710 DOC. 1492467 PCL. 14 V. 2699 P. 507 DOC. 1603756 PCL. 12

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES
12	KUIPER, HENRY J	Fee AR TLE	2.823	0.000	2.823	0.191
13	HWY 20 LLC	Fee AR TLE	0.102	0.000	0.102	0.421
14	SPIRIT MASTER FUNDING II LLC	Fee AR TLE	0.097	0.000	0.097	0.238
15	MEURER TRUST	Fee TLE	0.333	0.000	0.333	0.250
16	LV 20 LLC	Fee AR	0.373	0.000	0.373	0.000
112	KUIPER, HENRY J	Fee	0.317	0.000	0.317	0.000
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
108	TOWN OF YORKVILLE	ROR	- -	- -	- -	- -
109	VILLAGE OF MT. PLEASANT	ROR	- -	- -	- -	- -

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	I 101-143	VARIES	1956
STH 20	F065-1(6)	VARIES	1963
EAST FRONTAGE ROAD	1032-06-29	VARIES	1989
KILBOURN DRIVE	CSM 1993	80'	1997

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 6-29-2010 — O E Andersen — Name Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 6-29-2010 — Paul Krause — Name PAUL KRAUSE

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.04
AMENDMENT NO: 1

Vol 1 pg 109

DOCUMENT # 2255367
RACINE COUNTY REGISTER OF DEEDS
July 13, 2010 4:15 PM

JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: $25.00
Pages: 1

327

FILE NAME : J:\projects\d2_r_10330294\20\040404A1_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 29-JUN-2010 07:10 PLOT BY : dotphk PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.04

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.04 AMENDMENT NO: 2

ADDS UTILITY AGREEMENT NUMBERS 209 & 210 TO TPP 1033-02-20-4.04 AMENDMENT NO. 1, RECORDED AS DOCUMENT 2255367.

THAT PART OF LOT 1 OF CSM 1993, LOT 1 OF CSM 1536 AND THAT PART OF THE NE1/4 OF THE NW1/4 AND THE NW1/4 OF THE NW1/4, SECTION 18, TOWN 3 NORTH, RANGE 22 EAST, VILLAGE OF MT. PLEASANT, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

I-94
PI STA 867+54.65
Y 186023.63
X 594013.56
PC STA 863+23.06
PT STA 871+86.23
DELTA 00°21'35"
D 00°02'30"
L 863.17
R 137503.87
LCH 863.17
LCB N 00°03'04" E

RELOCATED EAST FRONTAGE ROAD
PI STA 5868+01.25
Y 185995.04
X 595190.70
PC STA 5862+95.66
PT STA 5871+80.03
DELTA 69°24'45"
D 7°50'55"
L 884.38
R 730.00
LCH 831.28
LCB N 11°06'33" W

A Concrete Monument w/ A Brass Cap
Y 183686.18
X 594100.16

A Concrete Monument w/ A Brass Cap
Y 186347.14
X 594090.84

SCALE, FEET
0 100 200

GN

SEE TPP 1033-02-20-4.08

STA 294+10.29 STH 20 = STA 862+37.60 ℄ I-94

STA 294+96.54

STA 870+77.41

PI 867+54.65

℄ I-94

℄ EXISTING ℄ I-94

℄ NORTH BOUND ON RAMP

NO ACCESS, SEE PROJ. 1101-1(3)

℄ EXISTING EAST FRONTAGE ROAD

℄ RELOCATED EAST FRONTAGE ROAD

℄ EAST FRONTAGE ROAD

℄ KILBOURN DR.

℄ ACCESS ROAD

VILLAGE OF MT. PLEASANT

NW1/4-NW1/4

NE1/4-NW1/4

TLE SLOPES

TLE SLOPES AND DRIVES

NO ACCESS, SEE PROJ. 1032-06-29

SEE TPP 1033-02-20-4.02

SEE TPP 1033-02-20-4.05

1/16 LINE

SEE TPP 1033-02-20-4.03

LOT 1 CSM 1536 VOL 4 PAGE 119

LOT 1 CSM 1993 V 6 P. 25

STA 5871+49.26

STA 5863+73.20 E FR = STA 10+00 AR

DETAIL NOT TO SCALE

DETAIL A NOT TO SCALE

DETAIL B NOT TO SCALE

DETAIL C NOT TO SCALE

SHEET LOCATION

T-3-N

R-21-E

R-22-E

YORKVILLE R-21-E

MT. PLEASANT R-22-E

RACINE COUNTY

A Cast Iron Monument w/ A Brass Cap
Y 186275.68
X 596599.43

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	I 101-1(3)	VARIES	1956
STH 20	F065-1(6)	VARIES	1963
EAST FRONTAGE ROAD	1032-06-29	VARIES	1989
KILBOURN DRIVE	CSM 1993	80'	1997

NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

(100) V. 2708 P. 40 DOC. 1607079
PCL. 13
V. 2179 P. 414 DOC. 1387882
PCL. 14

(101) NO RECORDED EASEMENT
PCL. 15, 16

(103) V. 2699 P. 507 DOC. 1603756
PCL. 12
V. 2312 P. 133 DOC. 1441715
PCL. 12, 13
V. 2708 P. 40 DOC. 1607079
PCL. 13
V. 2179 P. 414 DOC. 1387882
PCL. 14
V. 2428 P. 710 DOC. 1492467
PCL. 14
V. 2312 P. 136 DOC. 1441716
PCL. 15

(108) V. 2090 P. 303 DOC. 1349538
PCL. 14, 15

(109) DOC. 1969715
PCL. 13
DOC. 1969714
PCL. 14
DOC. 1969713
PCL. 15

SCHEDULE OF LANDS & INTERESTS REQUIRED			OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.			
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES
12	HENRY J. KUIPER	Fee AR TLE	2.823	0.000	2.823	0.191
13	HWY 20 LLC	Fee AR TLE	0.102	0.000	0.102	0.421
14	SPIRIT MASTER FUNDING II LLC	Fee AR TLE	0.097	0.000	0.097	0.238
15	MEURER TRUST	Fee TLE	0.333	0.000	0.333	0.250
16	LV 20 LLC	Fee AR	0.373	0.000	0.373	0.000
112	HENRY J. KUIPER	Fee	0.317	0.000	0.317	0.000
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
108	TOWN OF YORKVILLE SEWER	ROR	- -	- -	- -	- -
109	VILLAGE OF MT. PLEASANT SANITARY	ROR	- -	- -	- -	- -
UA209	VILLAGE OF MT. PLEASANT SANITARY	- -	- -	- -	- -	- -
UA210	RACINE WATER UTILITY	- -	- -	- -	- -	- -

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES, THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 11-18-2010 — Name: DE Andersen — Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 11-17-2010 — Name: PAUL KRAUSE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.04
AMENDMENT NO: 2

DOCUMENT # 2269386
RACINE COUNTY REGISTER OF DEEDS
November 24, 2010 4:22 PM

JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 25.00
Pages: 1

Vol 1 Pg

FILE NAME : J:\projects\d2_r_10330294\20\040404A2_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 18-NOV-2010 06:55
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.04A2

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES
17	I-94 ASSOCIATES	Fee, AR, TLE	6.348	0.000	6.348	0.445

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	I 101-1(3)	VARIES	1956
STH 20	1032-06-29	VARIES	1989
CTH C	I 101-1(3)	140'	1956

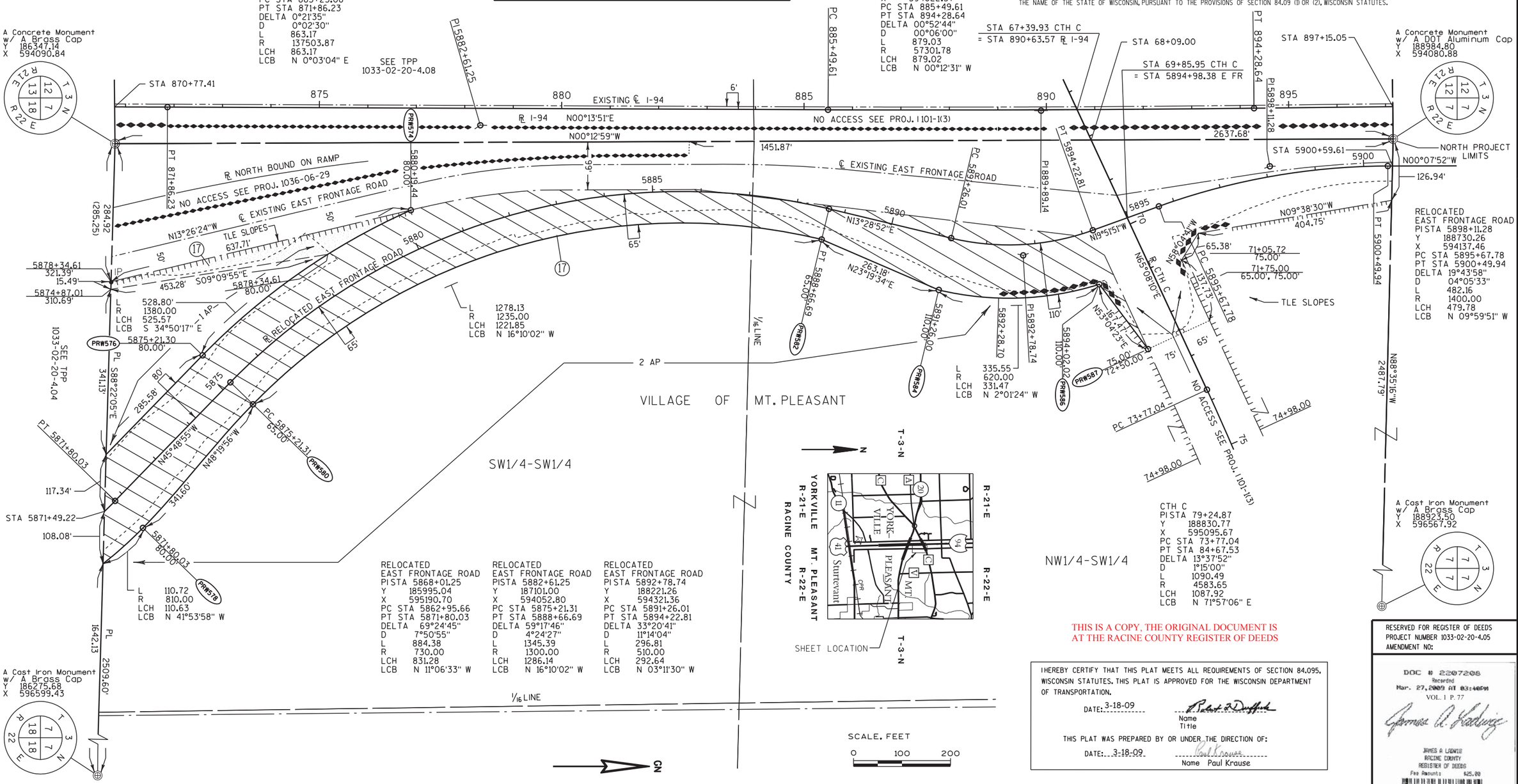
TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.05

THAT PART OF THE NW1/4 OF THE SW1/4 AND THE SW1/4 OF THE SW1/4 OF SECTION 7, TOWN 3 NORTH, RANGE 22 EAST, VILLAGE OF MT. PLEASANT, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
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2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.



RELOCATED EAST FRONTAGE ROAD PISTA 5898+11.28 Y 188730.26 X 594137.46 PC STA 5895+67.78 PT STA 5900+49.94 DELTA 19°43'58" D 04°05'33" L 482.16 R 1400.00 LCH 479.78 LCB N 09°59'51" W

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 3-18-09 Name Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 3-18-09 Name Paul Krause

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.05
AMENDMENT NO:

DOC # 2207206 Recorded Mar. 27, 2009 AT 03:40PM VOL. 1 P. 77
JAMES A LADWIG RACINE COUNTY REGISTER OF DEEDS Fee Amount: $25.00

FILE NAME : J:\projects\d2_r_10330294\040405_rp.dgn PLOT DATE : 17-MAR-2009 13:27 PLOT BY : dotphk PLOT NAME : PLOT SCALE : 100.000000:1.000000
APPRAISAL PLAT DATE :
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.05

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.06

THAT PART OF PARCEL 4 OF CSM 2008, PARCELS 1 AND 2 OF CSM 1950, PARCELS 1 AND 2 OF CSM 2154, PARCELS 1 AND 2 OF CSM 2604, PARCELS 1 AND 2 OF CSM2150, PARCELS 1 AND 2 OF CSM 2044, AND THAT PART OF THE NE1/4 OF THE NE1/4 AND THE SE1/4 OF THE NE1/4 OF SECTION 13, TOWN 3 NORTH, RANGE 21 EAST, TOWN OF YORKVILLE, RACINE COUNTY, WISCONSIN

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

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2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES NEW	EXISTING	TOTAL	T.L.E. TEMP. ACRES
18	SIERRA PROPERTIES LLC	Fee AR	0.328	0.000	0.328	0.000
19	REICO INVESTMENTS INC.	Fee AR TLE	0.286	0.000	0.286	.0310
20	WILLKOMM DEVELOPMENT LLP	Fee AR TLE	0.252	0.000	0.252	0.768
21	SNIKNEJ CO.	Fee AR	0.564	0.000	0.564	0.000
22	MOSHI HOTELS	Fee AR	0.026	0.000	0.026	0.005
23	MASKAL LLC	Fee AR	0.023	0.000	0.023	0.008
24	XYLON OF WISCONSIN INC.	AR TLE	0.000	0.000	0.000	0.083
25	TRIPLE H	AR TLE	0.000	0.000	0.000	0.106
26	SPOKES LLC	TLE	0.000	0.000	0.000	0.015
27	RACINE COUNTY CONVENTION CENTER	TLE	0.000	0.000	0.000	0.036
36	SNIKNEJ CO.	Fee AR	0.522	0.000	0.522	0.000
37	SNIKNEJ CO.	TLE	0.000	0.000	0.000	0.060
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
107	TIME WARNER CABLE	ROR	- -	- -	- -	- -
108	TOWN OF YORKVILLE	ROR	- -	- -	- -	- -

(100) V. 2683 P. 372 DOC. 1597577 PCL. 20
V. 2251 P. 323 DOC. 1417354 PCL. 20
V. 2670 P. 833 DOC. 1592809 PCL. 20
V. 2435 P. 793 DOC. 1495719 PCL. 22, 23
V. 2674 P. 417 DOC. 1594130 PCL. 24, 36
DOC. 1923809 PCL. 24
V. 2422 P. 248 DOC. 1489365 PCL. 21
NO RECORDED EASEMENT 18, 19, 20, 25

(101) NO RECORDED EASEMENT PCL. 18

(107) NO RECORDED EASEMENT PCL. 19,20,22,23,24,25,36

(103) V. 3010 P. 829 DOC. 1720105 PCL. 20
V. 2435 P. 793 DOC. 1495719 PCL. 22, 23
V. 2312 P. 152 DOC. 1442099 PCL. 25, 26, 27, 37
V. 2674 P. 417 DOC. 1594130 PCL. 24, 36
V. 2422 P. 248 DOC. 1489365 PCL. 21
V. 2362 P. 959 DOC. 1462193 PCL. 25
V. 2998 P. 592 DOC. 1715613 PCL. 25
V. 2998 P. 595 DOC. 1715614 PCL. 27
V. 2428 P. 702 DOC. 1492463 PCL. 27
V. 2251 P. 323 DOC. 1417354 PCL. 20

(108) V. 2474 P. 431 DOC. 1512697 PCL. 19, 20
V. 2051 P. 183 DOC. 1329937 PCL. 20
V. 2474 P. 428 DOC. 1512696 PCL. 22, 23
V. 3033 P. 412 DOC. 1728759 PCL. 24
V. 2474 P. 428 DOC. 1512698 PCL. 21, 24, 25, 36
DOC. 2069463 PCL. 21
V. 3014 P. 681 DOC. 1721604 PCL. 36
V. 3018 P. 001 DOC. 1722912 PCL. 27
V. 3014 P. 681 DOC. 1721605 PCL. 26, 37

A Concrete Monument w/ A Brass Cap
Y 183658.74
X 591455.76

SEE TPP 1033-02-20-4.07

SHEET LOCATION

YORKVILLE MT. PLEASANT R-21-E RACINE COUNTY R-21-E T-3-N R-22-E

NE1/4-NE1/4

PARCEL 1 CSM 2604 V 8 P 184
PARCEL 2 CSM 2150 V 6 P 594
PARCEL 1 CSM 2150 V 6 P 594
PARCEL 2 CSM 2154 V 6 P 607
PARCEL 1 CSM 2154 V 6 P 607
PARCEL 1 CSM 1950 V 5 P 953
PARCEL 4 CSM 2008 V 6 P 142
PARCEL 2 CSM 2044 V 6 P 253
PARCEL 1 CSM 2044 V 6 P 253

TOWN OF YORKVILLE
SE1/4-NE1/4

GRANDVIEW PKWY
WEST FRONTAGE ROAD & SYLVANIA AVE.
S. SYLVANIA AVE.
EXISTING ℄ I-94
℄ I-94
℄ SOUTH BOUND ON RAMP
℄ STH 20

CURVE 1 L 396.97 R 1356.39 LCH 395.55 LCB N 13°32'19" E
CURVE 2 L 358.21 R 1472.39 LCH 357.32 LCB N 14°57'05" E

NO ACCESS BY CSM 2154
TLE SLOPES AND DRIVE
CROSS ACCESS EASEMENT
NO ACCESS, SEE PROJ. 1032-06-29
NO ACCESS, SEE PROJECT 1032-06-29
NO ACCESS, SEE PROJECT I 101-1(3)
NO ACCESS DOC. 834267
TLE SLOPES AND DRIVE
TLE DRIVE
DETAIL NOT TO SCALE
12' UTILITY EASE. DOC. 145973
20' UTILITY EASE. DOC. 1604370
24' COMMON ACCESS EASEMENT
4AP
2AP
1AP*
SEE TPP 1033-02-20-4.02
SEE TPP 1033-02-20-4.08

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	I 101-1(3)	VARIES	1956
STH 20	2341-01-21	VARIES	1966
STH 20	1032-06-29	VARIES	1989

1AP* EXISTING SHARED ACCESS DRIVEWAY TO REMAIN.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

A Concrete Monument w/ A Brass Cap
Y 183686.18
X 594100.16

I-94
PI STA 839+47.69
Y 183216.67
X 594019.87
PC STA 834+61.20
PT STA 844+34.17
DELTA 0°19'28"
D 0°02'00"
L 972.97
R 171881.34
LCH 972.97
LCB N 00°17'27" W

WEST FRONTAGE ROAD
PI STA 2840+78.93
Y 183978.02
X 593881.13
PC STA 2840+09.08
PT STA 2841+18.89
DELTA 89°52'47"
D 81°51'04"
L 109.81
R 70.00
LCH 98.89
LCB N 45°14'10" W

WEST FRONTAGE ROAD
PI STA 2859+97.38
Y 185264.44
X 593219.32
PC STA 2856+03.11
PT STA 2863+80.62
DELTA 23°26'47"
D 3°00'56"
L 777.51
R 1900.00
LCH 772.10
LCB N 11°38'17" E

A Concrete Monument w/ A Brass Cap
Y 186347.14
X 594090.84

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

SCALE, FEET
0 100 200

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.
DATE: 3-18-09 Name Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:
DATE: 3-18-09 Name Paul Krause

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.06
AMENDMENT NO:

DOC # 2207209
Recorded
Mar. 27, 2009 AT 03:42PM
VOL. 1 P. 78
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 125.00

FILE NAME : J:\projects\d2_r_10330294\040406_rp.dgn
APPRAISAL PLAT DATE : 02-19-09
PLOT DATE : 24-MAR-2009 08:03
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.06

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.06 AMENDMENT NO. 1

ADDS UTILITY AGREEMENT NUMBERS 206 & 208 AND PARCELS 106 & 111, AMENDS PARCELS 100, 101, 103, 107, & 108, AND PARCELS 22, 23, & 19 IN THE SCHEDULE OF TPP 1033-02-20-4.06 RECORDED AS DOCUMENT 2207209.

THAT PART OF PARCEL 4 OF CSM 2008, PARCELS 1 AND 2 OF CSM 1950, PARCELS 1 AND 2OF CSM 2154, PARCELS 1 AND 2 OF CSM 2604, PARCELS 1 AND 2 OF CSM2150, PARCELS 1 AND 2 OF CSM 2044, AND THAT PART OF THE NE1/4 OF THE NE1/4 AND THE SE1/4 OFTHE NE1/4 OF SECTION 13, TOWN 3 NORTH, RANGE 21 EAST, TOWN OF YORKVILLE,RACINE COUNTY, WISCONSIN

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
			R/W REQUIRED ACRES			T.L.E.
PARCEL NUMBER	OWNER	INTEREST REQUIRED	NEW	EXISTING	TOTAL	TEMP. ACRES
18	SIERRA PROPERTIES LLC	Fee AR	0.328	0.000	0.328	0.000
19	REICO INVESTMENTS INC.	Fee AR TLE	0.286	0.000	0.286	0.310
20	WILLKOMM DEVELOPMENT LLP	Fee AR TLE	0.252	0.000	0.252	0.768
21	SNIKNEJ CO.	Fee AR	0.564	0.000	0.564	0.000
22	MOSHI HOTELS	Fee AR TLE	0.026	0.000	0.026	0.005
23	MASKAL LLC	Fee AR TLE	0.023	0.000	0.023	0.008
24	XYLON OF WISCONSIN INC.	AR TLE	0.000	0.000	0.000	0.083
25	TRIPLE H	AR TLE	0.000	0.000	0.000	0.106
26	SPOKES LLC	TLE	0.000	0.000	0.000	0.015
27	RACINE COUNTY CONVENTION CENTER	TLE	0.000	0.000	0.000	0.036
36	SNIKNEJ CO.	Fee AR	0.522	0.000	0.522	0.000
37	SNIKNEJ CO.	TLE	0.000	0.000	0.000	0.060
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
106	TOWN OF YORKVILLE WATER	ROR	- -	- -	- -	- -
107	TIME WARNER CABLE	ROR	- -	- -	- -	- -
108	TOWN OF YORKVILLE SEWER	ROR	- -	- -	- -	- -
111	TOWN OF YORKVILLE STORM	ROR	- -	- -	- -	- -
UA206	TOWN OF YORKVILLE WATER	- -	- -	- -	- -	- -
UA208	TOWN OF YORKVILLE SEWER	- -	- -	- -	- -	- -

(100) CSM 1686 V. 5 P. 162 DOC. 1458973 PCL. 18
V. 2683 P. 372 DOC. 1597577 PCL. 20
V. 2251 P. 323 DOC. 1417354 PCL. 20
V. 2670 P. 833 DOC. 1592809 PCL. 20
V. 2422 P. 248 DOC. 1489365 PCL. 21
V. 2435 P. 793 DOC. 1495719 PCL. 22, 23
V. 2674 P. 417 DOC. 1594130 PCL. 24, 36
DOC. 1923809 PCL. 24
NO RECORDED EASEMENT 19, 20, 25

(101) CSM 1686 V. 5 P. 162 DOC. 1458973 PCL. 18

(103) V. 3010 P. 829 DOC. 1720105 PCL. 20
V. 2251 P. 323 DOC. 1417354 PCL. 20
V. 2422 P. 248 DOC. 1489365 PCL. 21
V. 2435 P. 793 DOC. 1495719 PCL. 22, 23
V. 2674 P. 417 DOC. 1594130 PCL. 24, 36
V. 2362 P. 959 DOC. 1462193 PCL. 25
V. 2998 P. 592 DOC. 1715613 PCL. 25
V. 2312 P. 152 DOC. 1442099 PCL. 25, 26, 27, 37
V. 2998 P. 595 DOC. 1715614 PCL. 27
V. 2428 P. 702 DOC. 1492463 PCL. 27, 37

(106) V. 2474 P. 431 DOC. 1512697 PCL. 19, 20
DOC. 2069463 PCL. 21
V. 2474 P. 428 DOC. 1512698 PCL. 21, 24, 25, 36
V. 2474 P. 428 DOC. 1512696 PCL. 22, 23
V. 3014 P. 681 DOC. 1721605 PCL. 26, 37
V. 3018 P. 001 DOC. 1722912 PCL. 27

(107) NO RECORDED EASEMENT PCL. 19,20,22,23,36

(108) V. 1582 P. 31 DOC. 108311 PCL. 20

(111) V. 3033 P. 412 DOC. 1728759 PCL. 24
V. 3014 P. 681 DOC. 1721604 PCL. 36

A Concrete Monument w/ A Brass Cap
Y 183658.74
X 591455.76

N89°24'20"E 1696.02'

STA 1844+10.00 = STA 2847+08.93 WFR

PARCEL 4 CSM 2008 V 6 P 142

PARCEL 2 CSM 2150 V 6 P 594

PARCEL 2 CSM 2604 V 8 P 184

PARCEL 1 CSM 2604 V 8 P 184

PARCEL 2 CSM 2044 V 6 P 253

PARCEL 1 CSM 2044 V 6 P 253

PARCEL 1 CSM 2154 V 6 P 607

PARCEL 2 CSM 2154 V 6 P 607

PARCEL 1 CSM 2150 V 6 P 594

PARCEL 2 CSM 1950 V 5 P 953

PARCEL 1 CSM 1950 V 5 P 953

24' COMMON ACCESS EASEMENT

CROSS ACCESS EASEMENT

NO ACCESS BY CSM 2154

TLE SLOPES AND DRIVE

CROSS ACCESS EASEMENT

NO ACCESS PROJ. 1032-06-29

GRANDVIEW PKWY

W. FRONTAGE ROAD & SYLVANIA AVE.

S. SYLVANIA AVE.

TLE DRIVE

TLE SLOPES AND DRIVE

DETAIL NOT TO SCALE

TLE SLOPES

NO ACCESS, SEE PROJ. 1032-06-29

NO ACCESS, SEE PROJECT 1032-06-29

NO ACCESS, SEE PROJECT 1101-13)

R SOUTH BOUND ON RAMP

TOWN OF YORKVILLE

SE1/4-NE1/4

NE1/4-NE1/4

EXISTING ℄ I-94

R I-94

SEE TPP 1033-02-20-4.02

SEE TPP 1033-02-20-4.07

SEE TPP 1033-02-20-4.08

STA 294+10.29 STH 20 = STA 862+37.60 R I-94

STA 294+96.54

STA 287+76.10 STH 20 = STA 2865+23.97 WFR

1/16 LINE

PL

1AP* EXISTING SHARED ACCESS DRIVEWAY TO REMAIN.

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	I 101-1(3)	VARIES	1956
STH 20	2341-01-21	VARIES	1966
STH 20	1032-06-29	VARIES	1989

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

A Concrete Monument w/ A Brass Cap
Y 183686.18
X 594100.16

I-94
PI STA 839+47.69
Y 183216.67
X 594019.87
PC STA 834+61.20
PT STA 844+34.17
DELTA 0°19'28"
D 0°02'00"
L 972.97
R 171881.34
LCH 972.97
LCB N 00°17'27" W

WEST FRONTAGE ROAD
PI STA 2840+78.93
Y 183978.02
X 593881.13
PC STA 2840+09.08
PT STA 2841+18.89
DELTA 89°52'47"
D 81°51'04"
L 109.81
R 70.00
LCH 98.89
LCB N 45°14'10" W

WEST FRONTAGE ROAD
PI STA 2859+97.38
Y 185264.44
X 593219.32
PC STA 2856+03.11
PT STA 2863+80.62
DELTA 23°26'47"
D 3°00'56"
L 777.51
R 1900.00
LCH 772.10
LCB N 11°38'17" E

A Concrete Monument w/ A Brass Cap
Y 186347.14
X 594090.84

CURVE 1		CURVE 2	
L	396.97	L	358.21
R	1356.39	R	1472.39
LCH	395.55	LCH	357.32
LCB	N 13°32'19" E	LCB	N 14°57'05" E

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

SHEET LOCATION

YORKVILLE MT. PLEASANT R-21-E RACINE COUNTY R-22-E R-21-E T-3-N R-22-E

SCALE, FEET
0 100 200

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 11-18-2010 — A E Andersen — Name Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 11-18-2010 — Paul Krause — Name PAUL KRAUSE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.06
AMENDMENT NO: 1

DOCUMENT # 2269387
RACINE COUNTY REGISTER OF DEEDS
November 24, 2010 4:22 PM
James A. Ladwig
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 425.00
Pages: 1
Vol 1 Pg

FILE NAME : J:\projects\d2_r_10330294\20\040406A1_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 18-NOV-2010 14:23
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.06A1

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

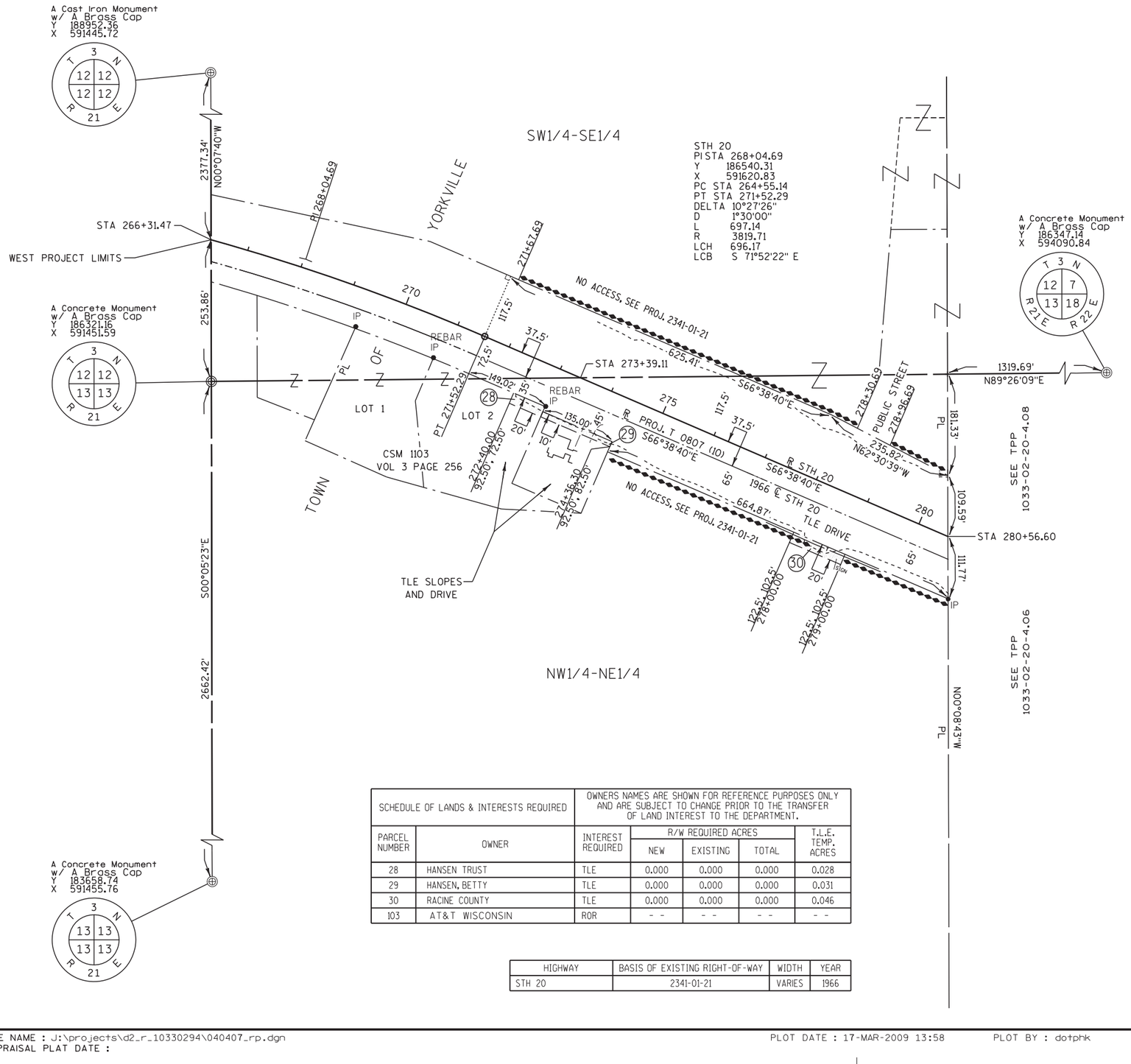
TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.07

THAT PART OF THE NW1/4 OF THE NE1/4 OF SECTION 13, AND THAT PART OF THE SW1/4 OF THE SE1/4 OF SECTION 12, TOWN 3 NORTH, RANGE 21 EAST, TOWN OF YORKVILLE, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

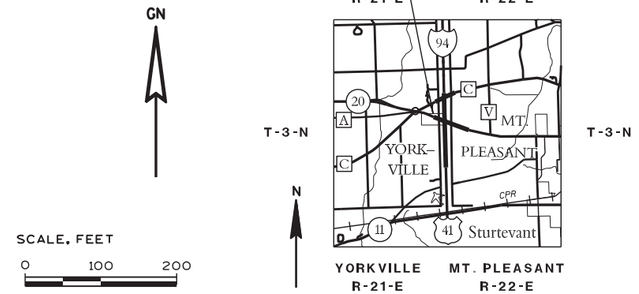
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.



SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES			T.L.E. TEMP. ACRES
			NEW	EXISTING	TOTAL	
28	HANSEN TRUST	TLE	0.000	0.000	0.000	0.028
29	HANSEN, BETTY	TLE	0.000	0.000	0.000	0.031
30	RACINE COUNTY	TLE	0.000	0.000	0.000	0.046
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
STH 20	2341-01-21	VARIES	1966



NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 3-18-09 Robert J. Duffield
Name
Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 3-18-09 Paul Krause
Name Paul Krause

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.07
AMENDMENT NO:

DOC # 2207210
Recorded
Mar. 27, 2009 AT 03:43PM
James A. Ladwig
VOL. 1 P. 79
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 125.00

FILE NAME : J:\projects\d2_r_10330294\040407_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 17-MAR-2009 13:58
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.07

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.07 AMENDMENT NO: 1

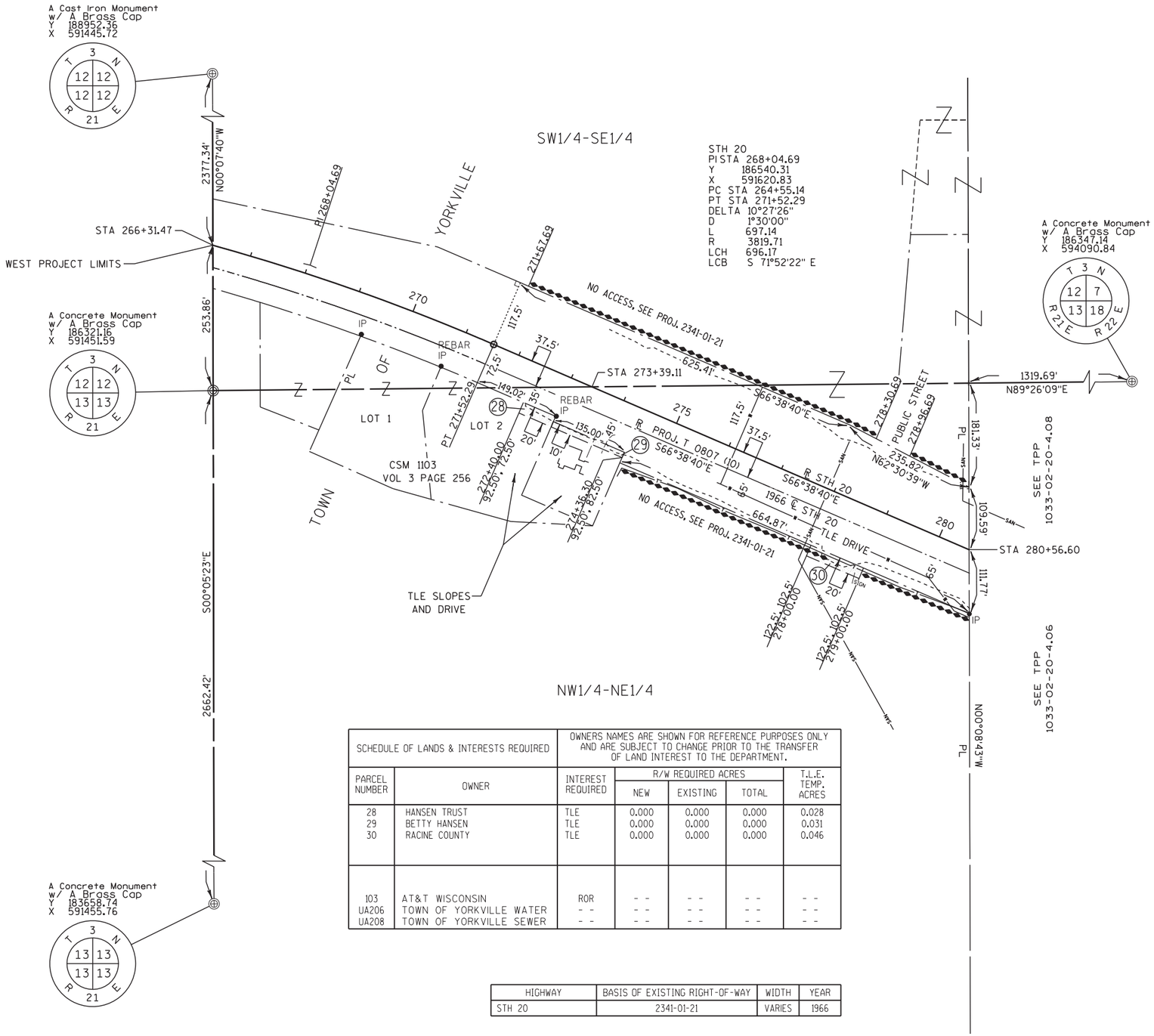
AMENDS TPP 1033-02-20-4.07, RECORDED AS DOCUMENT 2207210, BY ADDING UTILITY AGREEMENT NUMBERS 206 & 208.

THAT PART OF THE NW1/4 OF THE NE1/4 OF SECTION 13, AND THAT PART OF THE SW1/4 OF THE SE1/4 OF SECTION 12, TOWN 3 NORTH, RANGE 21 EAST, TOWN OF YORKVILLE, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

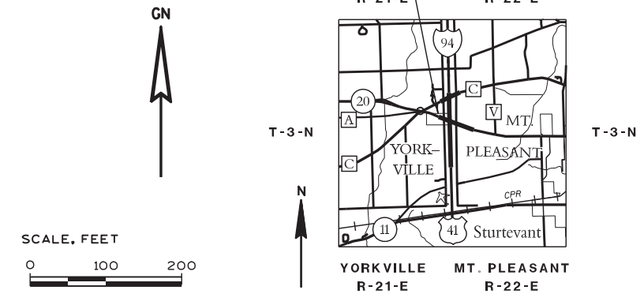
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.



SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES NEW	R/W REQUIRED ACRES EXISTING	R/W REQUIRED ACRES TOTAL	T.L.E. TEMP. ACRES
28	HANSEN TRUST	TLE	0.000	0.000	0.000	0.028
29	BETTY HANSEN	TLE	0.000	0.000	0.000	0.031
30	RACINE COUNTY	TLE	0.000	0.000	0.000	0.046
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
UA206	TOWN OF YORKVILLE WATER	- -	- -	- -	- -	- -
UA208	TOWN OF YORKVILLE SEWER	- -	- -	- -	- -	- -

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
STH 20	2341-01-21	VARIES	1966



NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 11-18-2010 — Name / Title: D E Anderson

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 11-17-2010 — Name: Paul Krause — PAUL KRAUSE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.07
AMENDMENT NO: 1

DOCUMENT # 2269388
RACINE COUNTY REGISTER OF DEEDS
November 24, 2010 4:22 PM
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 125.00
Pages: 1
Vol 1 Pg

FILE NAME : J:\projects\d2_r_10330294\20\040407A1_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 18-NOV-2010 06:57
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-02-70 STH 20 R/W 1033-02-20 4.07A1

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.08

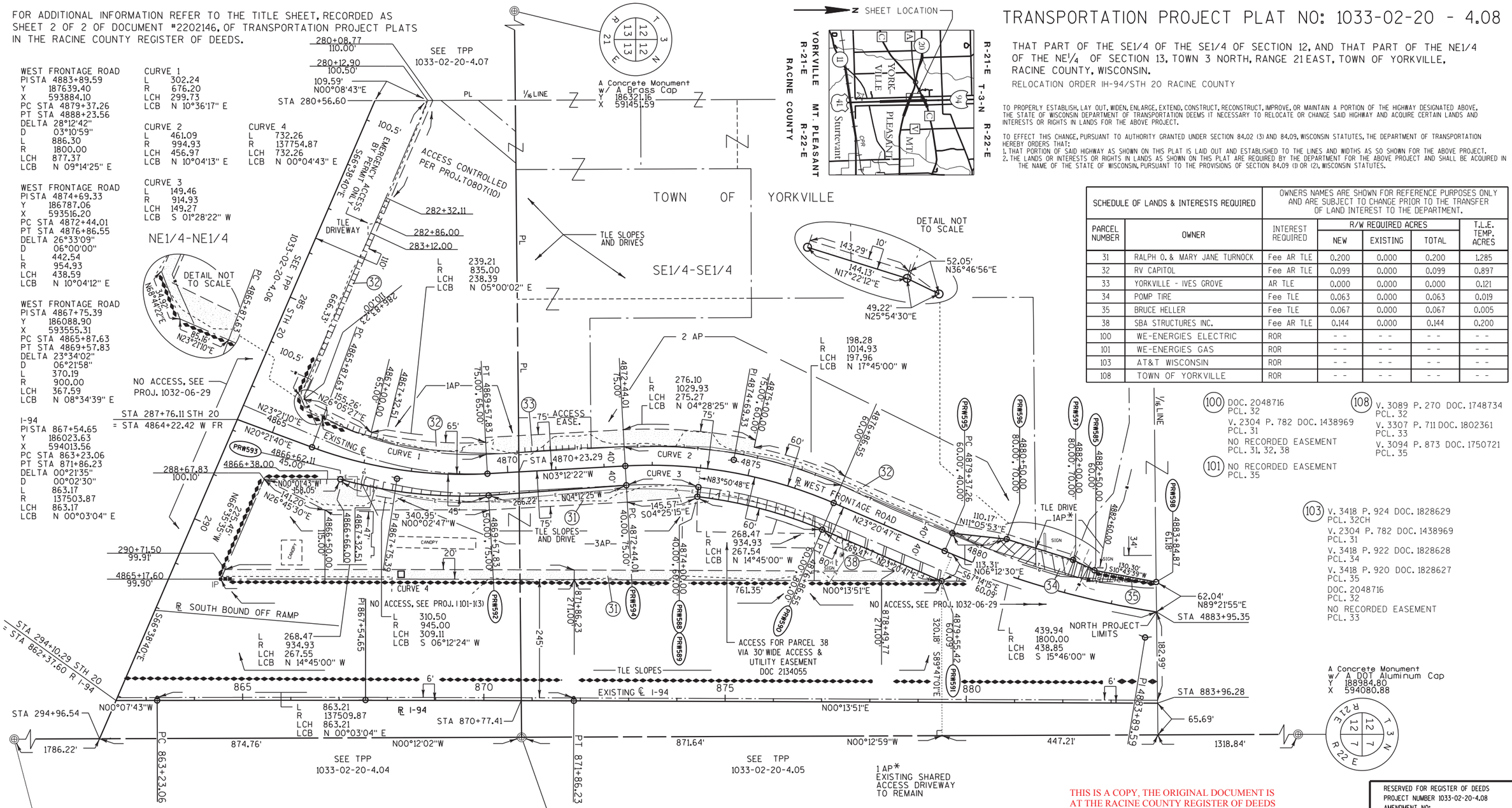
THAT PART OF THE SE1/4 OF THE SE1/4 OF SECTION 12, AND THAT PART OF THE NE1/4 OF THE NE1/4 OF SECTION 13, TOWN 3 NORTH, RANGE 21 EAST, TOWN OF YORKVILLE, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.



SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES			T.L.E. TEMP. ACRES
			NEW	EXISTING	TOTAL	
31	RALPH O. & MARY JANE TURNOCK	Fee AR TLE	0.200	0.000	0.200	1.285
32	RV CAPITOL	Fee AR TLE	0.099	0.000	0.099	0.897
33	YORKVILLE - IVES GROVE	AR TLE	0.000	0.000	0.000	0.121
34	POMP TIRE	Fee TLE	0.063	0.000	0.063	0.019
35	BRUCE HELLER	Fee TLE	0.067	0.000	0.067	0.005
38	SBA STRUCTURES INC.	Fee AR TLE	0.144	0.000	0.144	0.200
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
108	TOWN OF YORKVILLE	ROR	- -	- -	- -	- -

(100) DOC. 2048716 PCL. 32
V. 2304 P. 782 DOC. 1438969 PCL. 31
NO RECORDED EASEMENT PCL. 31, 32, 38

(101) NO RECORDED EASEMENT PCL. 35

(103) V. 3418 P. 924 DOC. 1828629 PCL. 32CH
V. 2304 P. 782 DOC. 1438969 PCL. 31
V. 3418 P. 922 DOC. 1828628 PCL. 34
V. 3418 P. 920 DOC. 1828627 PCL. 35
DOC. 2048716 PCL. 32
NO RECORDED EASEMENT PCL. 33

(108) V. 3089 P. 270 DOC. 1748734 PCL. 32
V. 3307 P. 711 DOC. 1802361 PCL. 33
V. 3094 P. 873 DOC. 1750721 PCL. 35

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	I 101-1(3)	VARIES	1956
STH 20	2341-01-21	VARIES	1966
STH 20	1032-06-29	VARIES	1989

NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

A Concrete Monument w/ A Brass Cap
Y 183686.18
X 594100.16

A Concrete Monument w/ A Brass Cap
Y 186347.14
X 594090.84

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 3-18-09 Robert J. Duffhues
Name
Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 3-18-09 Paul Krause
Name Paul Krause

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.08
AMENDMENT NO:

DOC # 2207211
Recorded
Mar. 27, 2009 AT 03:46PM
VOL. 1 P. 80
JAMES A. LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 125.00

FILE NAME : J:\projects\d2_r_10330294\040408_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 17-MAR-2009 14:01
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-20-70 STH 20 R/W 1033-02-20 4.08

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.08 AMENDMENT NO: 1

AMENDS PARCELS 31, 100, & 103 OF TPP 1033-02-20-4.08, RECORDED AS DOCUMENT 2207211.

THAT PART OF THE SE1/4 OF THE SE1/4 OF SECTION 12, AND THAT PART OF THE NE1/4 OF THE NE1/4 OF SECTION 13, TOWN 3 NORTH, RANGE 21 EAST, TOWN OF YORKVILLE, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
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SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES			T.L.E. TEMP. ACRES
			NEW	EXISTING	TOTAL	
31	RALPH O. & MARY JANE TURNOCK	Fee AR TLE	0.200	0.000	0.200	1.213
32	RV CAPITOL	Fee AR TLE	0.099	0.000	0.099	0.897
33	YORKVILLE - IVES GROVE	AR TLE	0.000	0.000	0.000	0.121
34	POMP TIRE	Fee TLE	0.063	0.000	0.063	0.019
35	BRUCE HELLER	Fee TLE	0.067	0.000	0.067	0.005
38	SBA STRUCTURES INC.	Fee AR TLE	0.144	0.000	0.144	0.200
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
108	TOWN OF YORKVILLE	ROR	- -	- -	- -	- -

SHEET LOCATION

YORKVILLE R-21-E, MT. PLEASANT R-22-E, RACINE COUNTY, R-21-E, T-3-N, R-22-E, YORK-VILLE, PLEASANT MT., Sturtevant, CTH H, STH 20, STH 11, STH 41, STH 94

WEST FRONTAGE ROAD
PI STA 4883+89.59
Y 187639.40
X 593884.10
PC STA 4879+37.26
PT STA 4888+23.56
DELTA 28°12'42"
D 03°10'59"
L 886.30
R 1800.00
LCH 877.37
LCB N 09°14'25" E

WEST FRONTAGE ROAD
PI STA 4874+69.33
Y 186787.06
X 593516.20
PC STA 4872+44.01
PT STA 4876+86.55
DELTA 26°33'09"
D 06°00'00"
L 442.54
R 954.93
LCH 438.59
LCB N 10°04'12" E

WEST FRONTAGE ROAD
PI STA 4867+75.39
Y 186088.90
X 593555.31
PC STA 4865+87.63
PT STA 4869+57.83
DELTA 23°34'02"
D 06°21'58"
L 370.19
R 900.00
LCH 367.59
LCB N 08°34'39" E

I-94
PI STA 867+54.65
Y 186023.63
X 594013.56
PC STA 863+23.06
PT STA 871+86.23
DELTA 00°21'35"
D 00°02'30"
L 863.17
R 137503.87
LCH 863.17
LCB N 00°03'04" E

CURVE 1
L 302.24
R 676.20
LCH 299.73
LCB N 10°36'17" E

CURVE 2
L 461.09
R 994.93
LCH 456.97
LCB N 10°04'13" E

CURVE 3
L 149.46
R 914.93
LCH 149.27
LCB S 01°28'22" W

CURVE 4
L 732.26
R 137754.87
LCH 732.26
LCB N 00°04'43" E

280+08.77
110.00'
280+12.90
100.50'
109.59'
N00°08'43"E
STA 280+56.60
SEE TPP 1033-02-20-4.07
PL
1/16 LINE
A Concrete Monument w/ A Brass Cap
Y 186321.16
X 59145.59
100.5'
EMERGENCY ACCESS BY PERMIT ONLY
S66°39'40"E
ACCESS CONTROLLED PER PROJ.TO807(10)
282+32.11
TLE DRIVEWAY
282+86.00
283+12.00
110'
TOWN OF YORKVILLE
TLE SLOPES AND DRIVES
SE1/4-SE1/4
NE1/4-NE1/4
DETAIL NOT TO SCALE
L 239.21
R 835.00
LCH 238.39
LCB N 05°00'02" E
1033-02-20-4.06
SEE TPP
285 STH 20
PC 4865+81.83
PT 4869+51.83
666.33'
285+83.23
110.00'
N68°34'22"E 34.26'
N23°21'10"E 85.16'
100.5'
NO ACCESS, SEE PROJ. 1032-06-29
STA 287+76.11 STH 20
= STA 4864+22.42 W FR
N26°05'27"E 155.26'
N23°21'10"E
N20°21'40"E
EXISTING ℄
CURVE 1
65'
4865
4866+27.60
45°00'
4866+62.11
N00°01'43"W 158.08'
141.20'
N26°45'30"E
288+67.83
100.10'
290
N66°39'35"W 225.45'
290+71.50
99.91'
4865+17.60
99.90'
IP
℄ SOUTH BOUND OFF RAMP
S66°39'40"E
STA 294+10.29 STH 20
= STA 862+37.60 R I-94
STA 294+96.54
N00°07'43"W
1786.22'
PC 863+23.06
874.76'
N00°12'02"W
SEE TPP 1033-02-20-4.04
4866+75.35
4867+54.65
4867+75.39
4868+57.83
4869+57.83
4869+75.00
4870
STA 4870+23.29
CURVE 2
CURVE 3
N03°12'22"W
N04°12'25"W
S05°49'57"E
98.68'
N83°50'48"E
198.46'
N00°02'47"W
75'
TLE SLOPES AND DRIVE
3AP
CANOPY
CURVE 4
NO ACCESS, SEE PROJ. 1101-1(3)
L 310.50
R 945.00
LCH 309.11
LCB S 06°12'24" W
L 268.47
R 934.93
LCH 267.55
LCB N 14°45'00" W
PI 4867+54.65
PI 4871+86.23
PT 871+86.23
245'
TLE SLOPES
6'
865
870
875
880
EXISTING ℄ I-94
℄ I-94
STA 870+77.41
L 863.21
R 137509.87
LCH 863.21
LCB N 00°03'04" E
NO ACCESS, SEE PROJ. 1032-06-29
ACCESS FOR PARCEL 38 VIA 30' WIDE ACCESS & UTILITY EASEMENT DOC 2134055
761.35'
N00°13'51"E
N00°12'59"W
447.21'
1318.84'
SEE TPP 1033-02-20-4.05
871.64'
PT 871+86.23
2 AP
L 198.28
R 1014.93
LCH 197.96
LCB N 17°45'00" W
L 276.10
R 1029.93
LCH 275.27
LCB N 04°28'25" W
4872+44.01
75.00'
4874+69.33
DOC. 2057222 ACCESS EASE.
75'
4875+00.00
65.00'
4876+32.73
4876+65.00
60'
4879+37.26
60.00', 40.00'
4880+50.00
80.00', 70.00'
4882+00.00
4882+50.00
60.00'
4883+84.87
61.18'
4883+89.59
182.99'
TLE DRIVE
1AP*
SIGN
34'
110.17'
N11°05'53"E
113.31'
N06°12'30"E
439.94
1800.00
438.85
S 15°46'00" W
NORTH PROJECT LIMITS
62.04'
N89°21'55"E
STA 4883+95.35
STA 883+96.28
65.69'
A Concrete Monument w/ A DOT Aluminum Cap
Y 188984.80
X 594080.88
1AP* EXISTING SHARED ACCESS DRIVEWAY TO REMAIN
DETAIL NOT TO SCALE
143.29'
10'
144.13'
N17°22'12"E
52.05'
N36°46'56"E
49.22'
N25°54'30"E
WEST FRONTAGE ROAD
N23°20'47"E
S61°14'15"E 60.09'
S10°43'39"W
S89°47'01"E
320.18'
4879+55.42
4879+77.49
271.00'
4871+86.23
271.00'
4872+44.01
4872+75.35
4873+00.00
4873+60.00
4874+00.00
4874+55.00
4874+65.00
60.00'
PRW591
PRW592
PRW593
PRW594
PRW595
PRW596
PRW597
PRW588
PRW589
PRW590
PRW598
(100) DOC. 2048716 PCL. 32
V. 2304 P. 782 DOC. 1438969 PCL. 31
NO RECORDED EASEMENT PCL. 32
(101) NO RECORDED EASEMENT PCL. 35
(103) V. 3418 P. 924 DOC. 1828629 PCL. 32CH
V. 2304 P. 782 DOC. 1438969 PCL. 31
V. 3418 P. 922 DOC. 1828628 PCL. 34
V. 3418 P. 920 DOC. 1828627 PCL. 35
DOC. 2048716 PCL. 32
(108) V. 3089 P. 270 DOC. 1748734 PCL. 32
V. 3307 P. 711 DOC. 1802361 PCL. 33
V. 3094 P. 873 DOC. 1750721 PCL. 35

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	1101-1(3)	VARIES	1956
STH 20	2341-01-21	VARIES	1966
STH 20	1032-06-29	VARIES	1989

NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

A Concrete Monument w/ A Brass Cap
Y 183686.18
X 594100.16

A Concrete Monument w/ A Brass Cap
Y 186347.14
X 594090.84

26.63'
N73°16'23"E
101.24'
N10°18'26"W
DETAIL NOT TO SCALE

LOT#	PARCEL#
31	018-03-21-12-025-010
32	018-03-21-12-025-000
32	018-03-21-13-001-000
33	018-03-21-12-025-006
34	018-03-21-12-024-010
35	018-03-21-12-024-000
38	018-03-21-12-025-001

SCALE, FEET
0 100 200

GN

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.
DATE: 6-28-2010
Name Craig Andersen
Title RE Supervisor
THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:
DATE: 6-28-2010
Name PAUL KRAUSE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.08
AMENDMENT NO: 1
Vol 1 Pg 110
DOCUMENT # 2255368
RACINE COUNTY REGISTER OF DEEDS
July 13, 2010 4:20 PM
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: 425.00
Pages: 1

FILE NAME : J:\projects\d2_r_10330294\20\040408A1_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 28-JUN-2010 15:43
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-20-70 STH 20 R/W 1033-02-20 4.08

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.08 AMENDMENT NO: 2

ADDS PARCEL 106 AND UTILITY AGREEMENT NUMBERS 206 & 208, AND AMENDS PARCEL 108 OF TPP 1033-02-20-4.08 AMENDMENT NO. 1, RECORDED AS DOCUMENT 2255368.

THAT PART OF THE SE1/4 OF THE SE1/4 OF SECTION 12, AND THAT PART OF THE NE1/4 OF THE NE1/4 OF SECTION 13, TOWN 3 NORTH, RANGE 21 EAST, TOWN OF YORKVILLE, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

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1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
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SCHEDULE OF LANDS & INTERESTS REQUIRED			OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.			
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES			T.L.E. TEMP. ACRES
			NEW	EXISTING	TOTAL	
31	RALPH O. & MARY JANE TURNOCK	Fee AR TLE	0.200	0.000	0.200	1.213
32	RV CAPITOL	Fee AR TLE	0.099	0.000	0.099	0.897
33	YORKVILLE - IVES GROVE	AR TLE	0.000	0.000	0.000	0.121
34	POMP TIRE	Fee TLE	0.063	0.000	0.063	0.019
35	BRUCE HELLER	Fee TLE	0.067	0.000	0.067	0.005
38	SBA STRUCTURES INC.	Fee AR TLE	0.144	0.000	0.144	0.200
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
106	TOWN OF YORKVILLE WATER	ROR	- -	- -	- -	- -
108	TOWN OF YORKVILLE SEWER	ROR	- -	- -	- -	- -
UA206	TOWN OF YORKVILLE WATER	- -	- -	- -	- -	- -
UA208	TOWN OF YORKVILLE SEWER	- -	- -	- -	- -	- -

(100) V. 2304 P. 782 DOC. 1438969 PCL. 31
DOC. 2048716 PCL. 32
NO RECORDED EASEMENT PCL. 32

(101) NO RECORDED EASEMENT PCL. 35

(103) V. 2304 P. 782 DOC. 1438969 PCL. 31
DOC. 2048716 PCL. 32
V. 3418 P. 924 DOC. 1828629 PCL. 32CH
V. 3418 P. 922 DOC. 1828628 PCL. 34
V. 3418 P. 920 DOC. 1828627 PCL. 35

(106) V. 3089 P. 270 DOC. 1748734 PCL. 32
V. 3094 P. 873 DOC. 1750721 PCL. 35

(108) V. 3307 P. 711 DOC. 1802361 PCL. 33

1 AP* EXISTING SHARED ACCESS DRIVEWAY TO REMAIN

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	I 101-1(3)	VARIES	1956
STH 20	2341-01-21	VARIES	1966
STH 20	1032-06-29	VARIES	1989

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

A Concrete Monument w/ A Brass Cap Y 183686.18 X 594100.16

A Concrete Monument w/ A Brass Cap Y 186347.14 X 594090.84

A Concrete Monument w/ A Brass Cap Y 186321.16 X 591451.59

A Concrete Monument w/ A DOT Aluminum Cap Y 188984.80 X 594080.88

SEE TPP 1033-02-20-4.07

SEE TPP 1033-02-20-4.04

SEE TPP 1033-02-20-4.05

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

SCALE, FEET 0 100 200

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE: 11-18-2010 — A E Andersen — Name Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:

DATE: 11-18-2010 — Paul Krause — Name PAUL KRAUSE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.08
AMENDMENT NO: 2

DOCUMENT # 2269389
RACINE COUNTY REGISTER OF DEEDS
November 24, 2010 4:22 PM
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: $25.00
Pages: 1
Vol 1 Pg 138

FILE NAME : J:\projects\d2_r_10330294\20\040408A2_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 18-NOV-2010 14:26
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-20-70 STH 20 R/W 1033-02-20 4.08A2

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2 OF DOCUMENT #2202146, OF TRANSPORTATION PROJECT PLATS IN THE RACINE COUNTY REGISTER OF DEEDS.

TRANSPORTATION PROJECT PLAT NO: 1033-02-20 - 4.08 AMENDMENT NO: 3

ADDS PARCEL 107 AND AMENDS PARCELS 100 & 103 OF TPP 1033-02-20-4.08 AMENDMENT NO. 2, RECORDED AS DOCUMENT 2269389.

THAT PART OF THE SE1/4 OF THE SE1/4 OF SECTION 12, AND THAT PART OF THE NE1/4 OF THE NE1/4 OF SECTION 13, TOWN 3 NORTH, RANGE 21 EAST, TOWN OF YORKVILLE, RACINE COUNTY, WISCONSIN.

RELOCATION ORDER IH-94/STH 20 RACINE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF LANDS & INTERESTS REQUIRED		OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE DEPARTMENT.				
PARCEL NUMBER	OWNER	INTEREST REQUIRED	R/W REQUIRED ACRES			T.L.E. TEMP. ACRES
			NEW	EXISTING	TOTAL	
31	RALPH O. & MARY JANE TURNOCK	Fee AR TLE	0.200	0.000	0.200	1.213
32	RV CAPITOL	Fee AR TLE	0.099	0.000	0.099	0.897
33	YORKVILLE - IVES GROVE	AR TLE	0.000	0.000	0.000	0.121
34	POMP TIRE	Fee TLE	0.063	0.000	0.063	0.019
35	BRUCE HELLER	Fee TLE	0.067	0.000	0.067	0.005
38	SBA STRUCTURES INC.	Fee AR TLE	0.144	0.000	0.144	0.200
100	WE-ENERGIES ELECTRIC	ROR	- -	- -	- -	- -
101	WE-ENERGIES GAS	ROR	- -	- -	- -	- -
103	AT&T WISCONSIN	ROR	- -	- -	- -	- -
106	TOWN OF YORKVILLE WATER	ROR	- -	- -	- -	- -
107	TIME WARNER CABLE	ROR	- -	- -	- -	- -
108	TOWN OF YORKVILLE SEWER	ROR	- -	- -	- -	- -
UA206	TOWN OF YORKVILLE WATER	- -	- -	- -	- -	- -
UA208	TOWN OF YORKVILLE SEWER	- -	- -	- -	- -	- -

WEST FRONTAGE ROAD
PI STA 4883+89.59
Y 187639.40
X 593884.10
PC STA 4879+37.26
PT STA 4888+23.56
DELTA 28°12'42"
D 03°10'59"
L 886.30
R 1800.00
LCH 877.37
LCB N 09°14'25" E

WEST FRONTAGE ROAD
PI STA 4874+69.33
Y 186787.06
X 593516.20
PC STA 4872+44.01
PT STA 4876+86.55
DELTA 26°33'09"
D 06°00'00"
L 442.54
R 954.93
LCH 438.59
LCB N 10°04'12" E

WEST FRONTAGE ROAD
PI STA 4867+75.39
Y 186088.90
X 593555.31
PC STA 4865+87.63
PT STA 4869+57.83
DELTA 23°34'02"
D 06°21'58"
L 370.19
R 900.00
LCH 367.59
LCB N 08°34'39" E

I-94
PI STA 867+54.65
Y 186023.63
X 594013.56
PC STA 863+23.06
PT STA 871+86.23
DELTA 00°21'35"
D 00°02'30"
L 863.17
R 137503.87
LCH 863.17
LCB N 00°03'04" E

CURVE 1
L 302.24
R 676.20
LCH 299.73
LCB N 10°36'17" E

CURVE 2
L 461.09
R 994.93
LCH 456.97
LCB N 10°04'13" E

CURVE 3
L 149.46
R 914.93
LCH 149.27
LCB S 01°28'22" W

CURVE 4
L 732.26
R 137754.87
LCH 732.26
LCB N 00°04'43" E

A Concrete Monument w/ A Brass Cap
Y 186321.16
X 591451.59

SEE TPP 1033-02-20-4.07

280+08.77
110.00'
280+12.90
100.50'
109.59'
N00°08'43"E
STA 280+56.60

PL
1/16 LINE
100.5'
EMERGENCY BY PERMIT ONLY ACCESS
566.38'40"E
ACCESS CONTROLLED PER PROJ. T0807(10)
282+32.11
282+86.00
283+12.00
TLE DRIVEWAY
TLE SLOPES AND DRIVES
TOWN OF YORKVILLE
SE1/4-SE1/4
NE1/4-NE1/4
DETAIL NOT TO SCALE
N68°44'22"E
85.16'
N23°21'10"E
SEE TPP 1033-02-20-4.06
PC 4865+81.63
285 STH 20
666.33'
286+33.27
L 239.21
R 835.00
LCH 238.39
LCB N 05°00'02" E
DETAIL NOT TO SCALE
143.29'
10'
144.13'
N17°22'12"E
52.05'
N36°46'56"E
49.22'
N25°54'30"E
L 198.28
R 1014.93
LCH 197.96
LCB N 17°45'00" W
NO ACCESS, SEE PROJ. 1032-06-29
STA 287+76.11 STH 20
= STA 4864+22.42 W FR
N20°21'40"E
N23°21'10"E
N26°05'27"E
155.26'
4865
4866+62.11
4866+27.60
288+67.83
100.10'
N00°01'43"W
141.20'
N26°45'30"E
45.00'
290
N66°35'35"W
290+71.50
99.91'
4865+17.60
99.90'
IP
R SOUTH BOUND OFF RAMP
STA 294+10.29 STH 20
STA 862+37.60 R I-94
N00°07'43"W
STA 294+96.54
1786.22'
PC 863+23.06
874.76'
N00°12'02"W
SEE TPP 1033-02-20-4.04
PT 871+86.23
871.64'
N00°12'59"W
SEE TPP 1033-02-20-4.05
447.21'
1318.84'
STA 883+96.28
65.69'
N00°13'51"E
STA 870+77.41
L 863.21
R 137509.87
LCH 863.21
LCB N 00°03'04" E
R I-94
EXISTING ℄ I-94
TLE SLOPES
865
870
875
880
6'
245'
271.00'
2 AP
1AP
3AP
DOC. 2057222 75' ACCESS EASE.
75'
65'
60'
40'
CURVE 1
CURVE 2
CURVE 3
CURVE 4
4870
STA 4870+23.29
4875
4880
4872+44.01
4874+65
4876+86.55
4878+49.77
4879+55.42
4880+50.00
4882+50.00
4883+84.87
4883+89.59
4869+57.83
4865+87.63
4866+27.60
4865+81.63
4865+32.51
4869+75.39
4869+57.83
4868+86.55
4874+69.33
4875+00.00
4876+86.55
N03°12'22"W
N04°12'25"W
S05°49'57"E
98.68'
N83°50'48"E
N23°20'47"E
N00°02'47"W
198.46'
45'
266.22
75'
TLE SLOPES AND DRIVE
CANOPY
20'
47'
84.27'
268.47
934.93
267.54
N 14°45'00" W
761.35'
N00°13'51"E
ACCESS FOR PARCEL 38 VIA 30' WIDE ACCESS & UTILITY EASEMENT DOC 2134055
NO ACCESS, SEE PROJ. 1101-1(3)
L 310.50
R 945.00
LCH 309.11
LCB S 06°12'24" W
L 268.47
R 934.93
LCH 267.55
LCB N 14°45'00" W
NO ACCESS, SEE PROJ. 1032-06-29
L 439.94
R 1800.00
LCH 438.85
LCB S 15°46'00" W
NORTH PROJECT LIMITS
62.04'
N89°21'55"E
STA 4883+95.35
182.99'
320.18'
S89°47'01"E
PRW592
PRW594
PRW588
PRW589
PRW590
PRW591
PRW593
PRW595
PRW596
PRW597
PRW585
PRW598
PRW599
PC 4879+37.26
60.00', 40.00'
80.00', 70.00'
60.00'
TLE DRIVE 1AP*
SIGN
1AP* EXISTING SHARED ACCESS DRIVEWAY TO REMAIN
110.17'
N11°05'53"E
113.31'
N06°12'30"E
S61°14'15"E
60.09'
S10°43'39"W
130.30'
34'
61.18'
NO RECORDED EASEMENT
PCL. 35
(100) V. 2304 P. 782 DOC. 1438969 PCL. 31
DOC. 2048716 PCL. 32
(101) NO RECORDED EASEMENT PCL. 35
(106) V. 3089 P. 270 DOC. 1748734 PCL. 32
V. 3094 P. 873 DOC. 1750721 PCL. 35
(107) NO RECORDED EASEMENT PCL. 34, 35
(108) V. 3307 P. 711 DOC. 1802361 PCL. 33
(103) V. 2304 P. 782 DOC. 1438969 PCL. 31
DOC. 2048716 PCL. 32
V. 3418 P. 924 DOC. 1828629 PCL. 32CH
V. 3418 P. 922 DOC. 1828628 PCL. 34
V. 3418 P. 920 DOC. 1828627 PCL. 35
NO RECORDED EASEMENT PCL. 33
A Concrete Monument w/ A DOT Aluminum Cap
Y 188984.80
X 594080.88

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
I-94	I 101-1(3)	VARIES	1956
STH 20	2341-01-21	VARIES	1966
STH 20	1032-06-29	VARIES	1989

NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, RACINE COUNTY ZONE, NAD83 (97) ADJUSTMENT AND ARE REFERENCED TO GPS HARN POINTS YORKVILLE EAST, RAYMOND SOUTH, AND PARIS EAST. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

A Concrete Monument w/ A Brass Cap
Y 183686.18
X 594100.16

A Concrete Monument w/ A Brass Cap
Y 186347.14
X 594090.84

DETAIL NOT TO SCALE
26.63'
N73°16'23"E
101.24'
N10°18'26"W

SHEET LOCATION
YORKVILLE R-21-E
MT. PLEASANT R-22-E
RACINE COUNTY
R-21-E T-3-N R-22-E
YORK-VILLE
MT. PLEASANT
Sturtevant
CPR
N

SCALE, FEET
0 100 200
GN

THIS IS A COPY, THE ORIGINAL DOCUMENT IS AT THE RACINE COUNTY REGISTER OF DEEDS

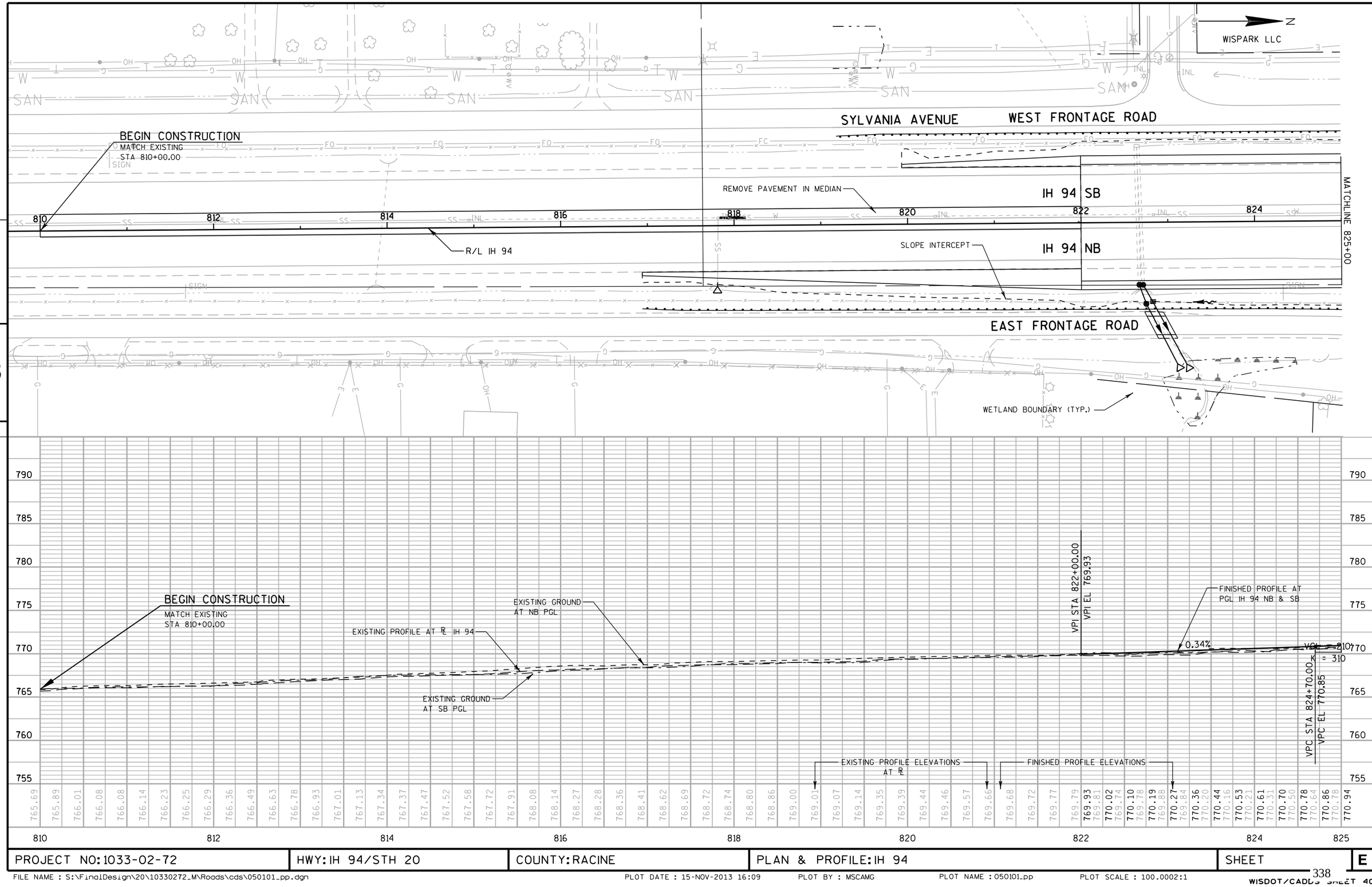
I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.
DATE: 1-14-2011
Name
Title

THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF:
DATE: 1-14-2011
Name PAUL KRAUSE

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1033-02-20-4.08
AMENDMENT NO: 3

DOCUMENT # 2276087
RACINE COUNTY REGISTER OF DEEDS
February 03, 2011 9:13 AM
JAMES A LADWIG
RACINE COUNTY
REGISTER OF DEEDS
Fee Amount: $25.00
Pages: 1
Vol 1 Pg 159

FILE NAME : J:\projects\d2_r_10330294\20\040408A3_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 14-JAN-2011 14:25
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 100.000000:1.000000
CONST. 1033-20-70 STH 20 R/W 1033-02-20 4.08A3



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN & PROFILE: IH 94	SHEET	E

WISPARK LLC

SYLVANIA PARTNERS LLC

GRANDVIEW BUS PARK OWNERS ASSO

BENDERSON-BENDERSON-BALDAUF

SYLVANIA AVENUE

WEST FRONTAGE ROAD

IH 94 SB

IH 94 NB

BEGIN PROJECT
I.D. 1033-02-70
STA 829+00.00

R/L IH 94

MATCHLINE 825+00

MATCHLINE 840+00

826 828 830 832 834 836 838 838SE

S-51-27

SLOPE INTERCEPT

EAST FRONTAGE ROAD

WETLAND BOUNDARY (TYP.)

CAUTION

BENCHMARK

NO.	LOCATION	DESCRIPTION	ELEVATION
CP83447	834+48.22 409.61'RT	MAG NAIL IN EAST FRONTAGE ROAD PAVEMENT	768.68

EXISTING GROUND AT NB PGL

EXISTING GROUND AT SB PGL

VPI STA 825+75.00
VPI EL 771.20

VPRC STA 826+80.00
VPRC EL 770.85

VPT STA 829+00.00
VPT EL 770.82

LP STA 827+94.93
LP EL 770.65

VPI STA 827+90.00
VPI EL 770.48

HP STA 825+75.09
HP EL 771.03

VCL = 210'
K = 310

VCL = 220'
K = 839

0.31%

BEGIN PROJECT
I.D. 1033-02-70
STA 829+00.00

FINISHED PROFILE AT PGL IH 94 NB & SB

EXISTING PROFILE AT ℄ IH 94

EXISTING PROFILE ELEVATIONS AT ℄

FINISHED PROFILE ELEVATIONS

826	828	830	832	834	836	838	840
770.78 770.94 770.87	770.99 770.89	771.02 770.98	771.03 770.92	771.02 770.93	770.99 770.95	770.94 771.05	770.87 771.20
770.79 771.19	770.73 771.11	770.68 771.19	770.66 771.22	770.65 771.22	770.67 771.30	770.70 771.48	770.75 771.50
770.82 771.56	770.89 771.45	770.97 771.47	771.05 771.50	771.13 771.29	771.20 771.46	771.28 771.55	771.36 771.56
771.44 771.53	771.51 771.60	771.59 771.81	771.67 771.91	771.75 771.81	771.82 771.78	771.90 771.79	771.98 771.94
772.06 772.11	772.13 772.20	772.21 772.24	772.29 772.23	772.37 772.25	772.44 772.37	772.52 772.44	772.60 772.43
772.68 772.39	772.75 772.45	772.83 772.48	772.91 772.49	772.99 772.52	773.06 772.51	773.14 772.59	773.22 772.69
773.30 772.71	773.37 772.66	773.45 772.67	773.53 772.75	773.61 772.97	773.68 772.95	773.76 772.89	773.84 772.83
773.91 772.80	773.99 772.80	774.07 772.83	774.15 772.84	774.22			

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN & PROFILE: IH 94	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\050103_pp.dgn PLOT DATE : 15-NOV-2013 16:10 PLOT BY : MSCAMG PLOT NAME : 050103_pp PLOT SCALE : 100.0002:1

BENDERSON-
BENDERSON-
BALDAUF

SIERRA PROPERTIES LLC

SYLVANIA AVENUE

R/L RAMP SW

WEST FRONTAGE
ROAD

IH 94 SB EXIT RAMP

RAMP SW

IH 94 SB ENTRANCE RAMP

IH 94 SB

IH 94 NB

R/L IH 94

MATCHLINE 840+00

MATCHLINE 855+00

842SW 844SW 846SW 848SW 850SW 852SW 854SW

842 844 846 848 850 852 854

842SE 844SE 846SE 848SE 850SE 852SE 854SE

R-51-42

RAMP SE

IH 94 NB EXIT RAMP

WETLAND BOUNDARY (TYP.)

SLOPE INTERCEPT

CAUTION

CHARNICK LLC

SHAH

B & G REALTY

KWIK TRIP INC

R/W

SIGN

5

5

790
785
780
775
770
765
760
755

FINISHED PROFILE AT $\mathbb{R}$ IH 94

EXISTING PROFILE AT $\mathbb{R}$ IH 94

0.31%

VPC STA 848+00.00
VPC EL 776.70

VCL = 400'
K = 303

VPI STA 850+00.00
VPI EL 777.32

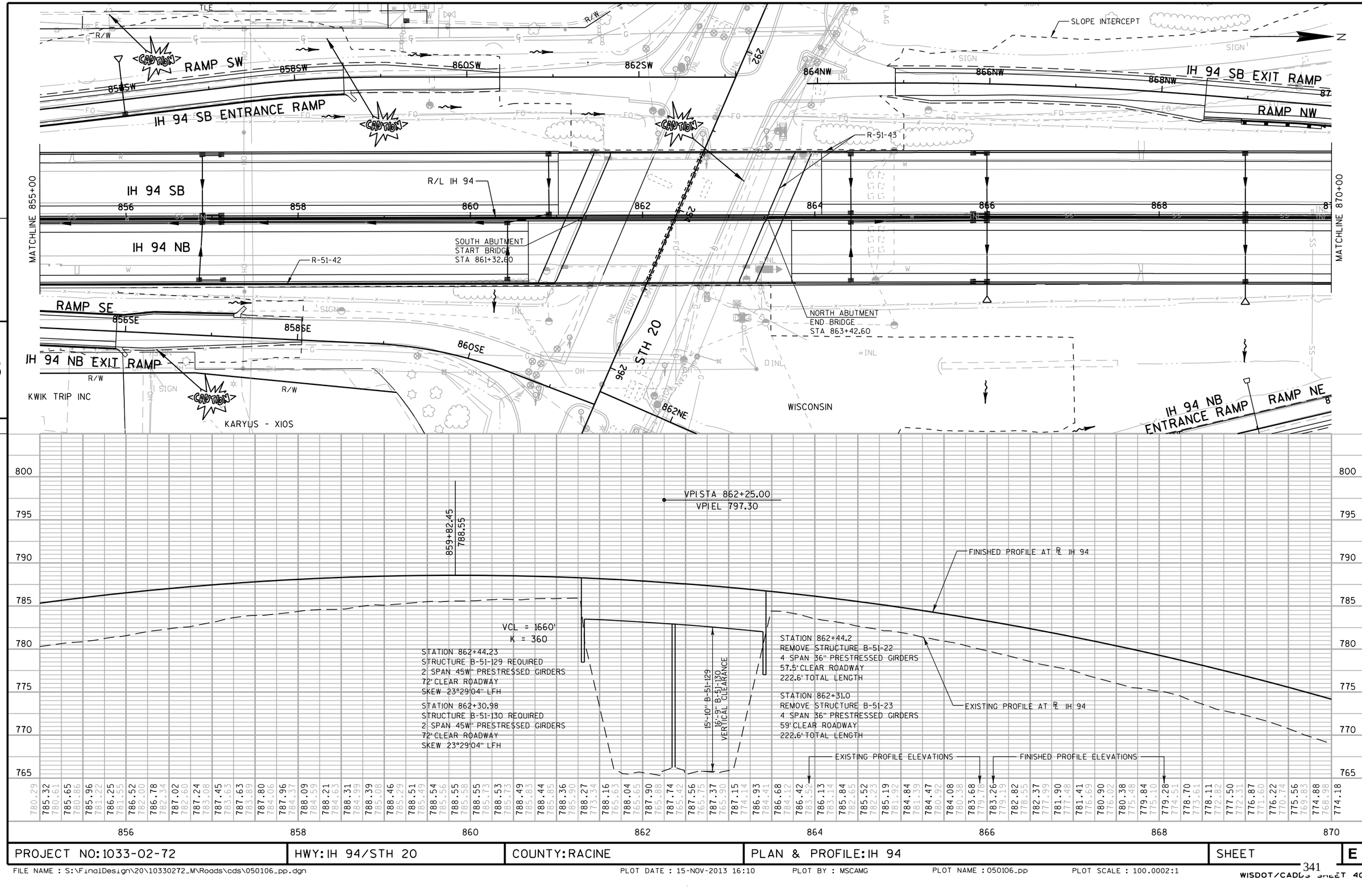
VPT STA 852+00.00
VPT EL 780.58

1.63%

VPC STA 853+95.00
VPC EL 783.76

VCL = 1660'
K = 360

| | | |



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN & PROFILE: IH 94	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\050106_pp.dgn PLOT DATE : 15-NOV-2013 16:10 PLOT BY : MSCAMG PLOT NAME : 050106_pp PLOT SCALE : 100.0002:1

NO.	LOCATION	DESCRIPTION	ELEVATION
CP88212	882+13.61 75.16'RT	MAG NAIL AT GUARD RAIL FENCE	752.72

S2A TURNOCK

WETLAND BOUNDARY (TYP.)

SLOPE INTERCEPT

BENCHMARK

WEST FRONTAGE ROAD

IH 94 SB EXIT RAMP

RAMP NW

R/L RAMP NW

S-51-28

IH 94 SB EXIT RAMP

RIPRAP

IH 94 SB

R/L IH 94

IH 94 NB

MATCHLINE 870+00

MATCHLINE 885+00

IH 94 NB ENTRANCE RAMP

RAMP NE

IH 94 NB ENTRANCE RAMP

CP88212

CAUTION

S2

R/W

EAST FRONTAGE ROAD

VPT STA 870+55.00
VPT EL 772.59

VCL = 1660'
K = 360

-2.98%

VPC STA 873+00.00
VPC EL 765.29

VCL = 600'
K = 242

FINISHED PROFILE AT ℄ IH 94

EXISTING PROFILE AT ℄ IH 94

VPI STA 876+00.00
VPI EL 756.36

VPT STA 879+00.00
VPT EL 754.86

-0.50%

EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

870	872	874	876	878	880	882	884
768.98	774.18	773.47	772.74	771.99	771.25	770.50	769.76
768.62	768.62	767.75	766.94	766.17	765.54	764.98	764.35
769.01	768.27	767.53	766.78	766.04	765.29	763.86	763.18
763.68	763.01	762.55	762.02	761.46	760.94	759.93	759.57
762.52	761.89	761.29	760.71	760.16	759.64	759.14	758.67
759.29	758.78	758.48	757.89	757.54	757.28	756.90	756.32
758.22	757.80	757.40	757.03	756.69	756.37	755.57	755.35
756.12	755.89	755.52	755.33	755.19	754.99	754.56	754.49
755.16	755.00	754.86	754.73	754.61	754.48	754.36	754.23
754.18	754.04	753.81	753.82	753.67	753.49	753.38	753.27
754.11	753.98	753.86	753.73	753.61	753.48	753.36	753.23
753.26	753.34	753.25	753.16	753.05	752.96	752.84	752.37
753.11	752.98	752.86	752.73	752.61	752.48	752.36	752.11
752.26	752.38	752.39	752.28	752.12	751.84	751.63	751.54
752.61	752.48	752.36	752.23	752.11	751.98	751.86	
751.50	751.84	751.63	751.54	751.50	751.55		

780	775	770	765	760	755	750	745

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN & PROFILE: IH 94	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\050107_pp.dgn PLOT DATE : 15-NOV-2013 16:11 PLOT BY : MSCAMG PLOT NAME : 050107_pp PLOT SCALE : 100.0002:1

WEST FRONTAGE ROAD

EAST FRONTAGE ROAD

N

MATCHLINE 885+00

MATCHLINE 900+00

886NW

886NE

R-51-44

R-51-45

SLOPE INTERCEPT

END PROJECT
I.D. 1033-02-70
STA 895+00.00

R/L IH 94

IH 94 SB

IH 94 NB

CP89687

CTH C

WETLAND BOUNDARY (TYP.)

R/W

BENCHMARK

NO.	LOCATION	DESCRIPTION	ELEVATION
CP89687	896+88.59 52.44' RT	CHISELED X	746.34

FINISHED PROFILE AT PGL IH 94 NB & SB

EXISTING PROFILE AT ℄ IH 94

-0.50%

-0.30%

-0.26%

VPI STA 895+00.00
VPI EL 746.86

VPI STA 898+00.00
VPI EL 745.96

END PROJECT
I.D. 1033-02-70
STA 895+00.00

EXISTING PROFILE ELEVATIONS AT ℄

FINISHED PROFILE ELEVATIONS

886	888	890	892	894	896	898	900
751.55 / 751.86 / 751.49	751.73 / 751.43	751.61 / 751.38	751.48 / 751.28	751.36 / 751.13	751.23 / 751.07	751.11 / 750.96	750.98 / 750.80
750.86 / 750.69	750.73 / 750.56	750.61 / 750.43	750.48 / 750.23	750.36 / 750.08	750.23 / 750.06	750.11 / 750.10	749.98 / 750.04
749.86 / 749.96	749.73 / 749.81	749.61 / 749.60	749.48 / 749.39	749.36 / 749.32	749.23 / 749.16	749.11 / 749.09	748.98 / 748.95
748.86 / 748.73	748.73 / 748.63	748.61 / 748.58	748.48 / 748.53	748.36 / 748.32	748.23 / 748.29	748.11 / 748.29	747.98 / 748.13
747.86 / 747.96	747.73 / 747.79	747.61 / 747.68	747.48 / 747.62	747.36 / 747.53	747.23 / 747.40	747.11 / 747.27	746.98 / 747.22
746.86 / 747.05	746.78 / 746.89	746.71 / 746.72	746.63 / 746.73	746.56 / 746.73	746.49 / 746.65	746.41 / 746.60	746.34 / 746.56
746.26 / 746.40	746.19 / 746.24	746.11 / 746.15	746.04 / 746.07	745.96 / 746.00	745.90 / 745.90	745.83 / 745.71	745.76 / 745.59
745.70 / 745.46	745.63 / 745.38	745.57 / 745.16	745.50 / 745.16	745.43			

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN & PROFILE: IH 94	SHEET	E

WEST FRONTAGE ROAD

SLOPE INTERCEPT

IH 94 SB

R/L IH 94

IH 94 NB

EAST FRONTAGE ROAD

MATCHLINE 900+00

WETLAND BOUNDARY (TYP.)

REMOVE CONCRETE PAVEMENT

END CONSTRUCTION
MATCH EXISTING
STA 913+35.00

902 904 906 908 910 912 914

INL W SS SIGN

FINISHED PROFILE AT PGL IH 94 SB

VPI STA 901+35.00
VPI EL 745.08

-0.27%

EXISTING GROUND AT SB PGL

EXISTING GROUND AT NB PGL

EXISTING PROFILE AT ℄ IH 94

END CONSTRUCTION
MATCH EXISTING
STA 913+35.00

765 760 755 750 745 740 735 730

FINISHED PROFILE ELEVATIONS

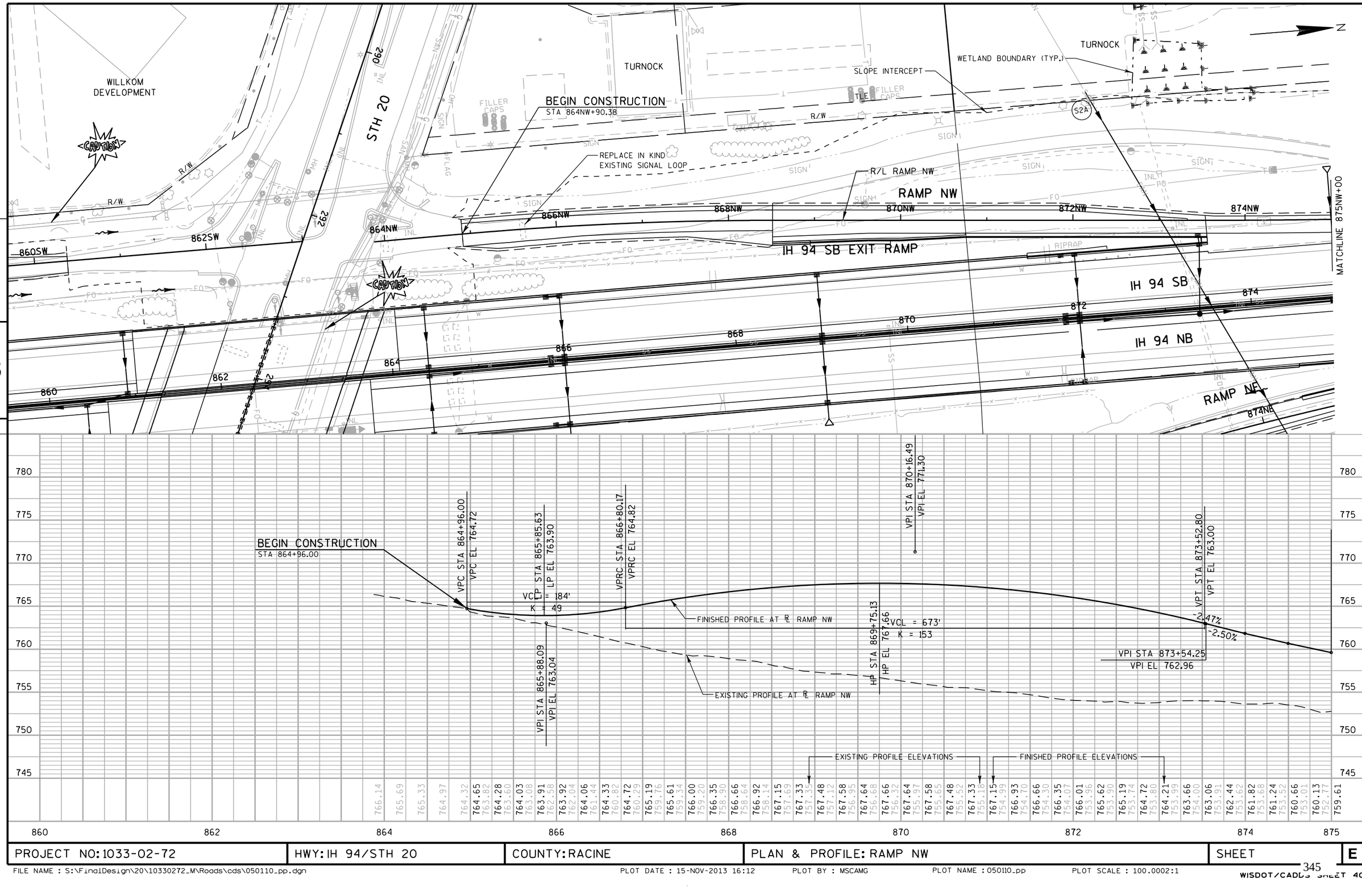
EXISTING PROFILE ELEVATIONS AT ℄

745.16 745.43 745.37 745.30 745.23 745.17 745.10 744.62 744.58 744.48 744.33 744.16 744.22 744.24 744.27 744.27 744.33 744.48 744.58 744.73 744.79 744.89 744.96 745.04 745.13 745.27 745.39 745.53 745.59 745.69 745.79 745.86 745.94 746.03 746.06 746.20 746.24 746.40 746.57 746.63 746.75 746.97 747.16 747.32 747.49 747.73 747.96 748.24 748.55 748.97 749.36 749.59 749.96

745.09 745.08 745.01 744.92 744.77 744.70

900 902 904 906 908 910 912

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN & PROFILE: IH 94	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN & PROFILE: RAMP NW	SHEET	E

WILLKOMM DEVELOPMENT LLP

REICO INVESTMENTS INC

WILLKOMM DEVELOPMENT LLP

WILLKOM DEVELOPMENT

SLOPE INTERCEPT

CAUTION

CAUTION

TLE

R/W

END CONSTRUCTION
STA 860SW+38.20

R/W

TLE

290

292

N

TURNOCK

TLE

SIGN

FLAG

SIGN

RAMP SW

IH 94 SB ENTRANCE RAMP

858SW

860SW

862SW

864NW

866NW

856SW

854SW

852SW

R/L RAMP SW

STH 20

CAUTION

MATCHLINE 851SW+00

IH 94 SB

IH 94 NB

852 854 856 858 860 862 864 866

5

5

VPI STA 851+00.43
VPI EL 778.20

VPI STA 851+50.53
VPI EL 778.58

VPI STA 852+16.00
VPI EL 779.15

VPI STA 852+55.00
VPI EL 779.37

VPI STA 855+60.96
VPI EL 781.70

0.74% 0.76% 0.87% 0.57% 0.76%

VPC STA 852+65.00
VPC EL 779.45

HP STA 853+73.24
HP EL 779.86

FINISHED PROFILE AT ℄ RAMP SW

EXISTING PROFILE AT ℄ RAMP SW

VCL = 592'
K = 142

VPRC STA 858+56.91
VPRC EL 771.65

VCL = 181'
K = 64

VPT STA 860+38.20
VPT EL 768.06

END CONSTRUCTION
STA 860+38.20

VPRC STA 859+47.56
VPRC EL 768.57

790 785 780 775 770 765 760 755

FINISHED PROFILE ELEVATIONS

EXISTING PROFILE ELEVATIONS

851	852	854	856	858	860	862	864	866
774.65	778.20	778.39	778.58	778.79	779.01	779.20	779.34	779.52
774.50	774.27	774.17	774.04	774.19	774.06	773.80	773.78	773.67
779.67	779.78	779.84	779.86	779.84	779.77	779.65	779.50	779.30
773.77	773.73	773.69	773.56	773.28	772.93	772.86	772.71	772.29
779.05	778.76	778.43	778.06	777.64	777.17	776.66	776.11	775.52
772.25	772.25	771.78	771.51	771.20	770.99	770.75	770.55	770.36
774.88	774.19	773.47	772.70	771.88	771.06	770.33	769.70	769.16
770.17	769.93	769.54	769.38	768.96	768.91	768.75	768.49	768.28
768.73	768.39	768.15	767.75	767.54	767.29	767.14	766.97	766.93
768.13	768.10	767.98						
766.92	766.81	767.18	766.68					

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN & PROFILE: RAMP SW	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\050111_pp.dgn PLOT DATE : 15-NOV-2013 16:13 PLOT BY : MSCAMG PLOT NAME : 050111_pp PLOT SCALE : 100.0002:1
WISDOT/CADDS SHEET 40

IH 94 SB

IH 94 NB

IH 94 NB EXIT RAMP

RAMP SE

MATCHLINE 849SE+00

850SE 852SE 854SE 856SE 858SE 860SE

850 852 854 856 858 860 862 864

END CONSTRUCTION
STA 858SE+04.98

STH 20

R/W

SLOPE INTERCEPT

R/L RAMP SE

CAUTION

SHAH

KWIK TRIP INC

B & G REALTY

KARYUS - XIOS

WISCONSIN

MEURER TRUST

862NE

864NE

5

5

VPI STA 849+00.10
VPI EL 776.17

VPI STA 849+50.17
VPI EL 776.22

VPI STA 850+13.00
VPI EL 776.40

VPI STA 850+35.00
VPI EL 776.42

VPC STA 850+50.00
VPC EL 776.47

HP STA 851+23.06
HP EL 776.58

VPI STA 853+20.32
VPI EL 777.28

VPC STA 855+92.50
VPC EL 772.05

VPT STA 855+90.64
VPT EL 772.09

VPI STA 856+30.00
VPI EL 771.33

VPC STA 856+80.00
VPC EL 770.94

VPT STA 856+67.50
VPT EL 771.04

VPI STA 857+40.00
VPI EL 770.47

VPT STA 858+00.00
VPT EL 769.53

VPI STA 858+10.00
VPI EL 769.38

0.06% 0.10% 0.29% 0.12% 0.30%

VCL = 541'
K = 244

VCL = 75'
K = 66

-0.78%

VCL = 120'
K = 153

-1.57%

FINISHED PROFILE AT ℄ RAMP SE

EXISTING PROFILE AT ℄ RAMP SE

END CONSTRUCTION
STA 858+10.00

EXISTING PROFILE ELEVATIONS

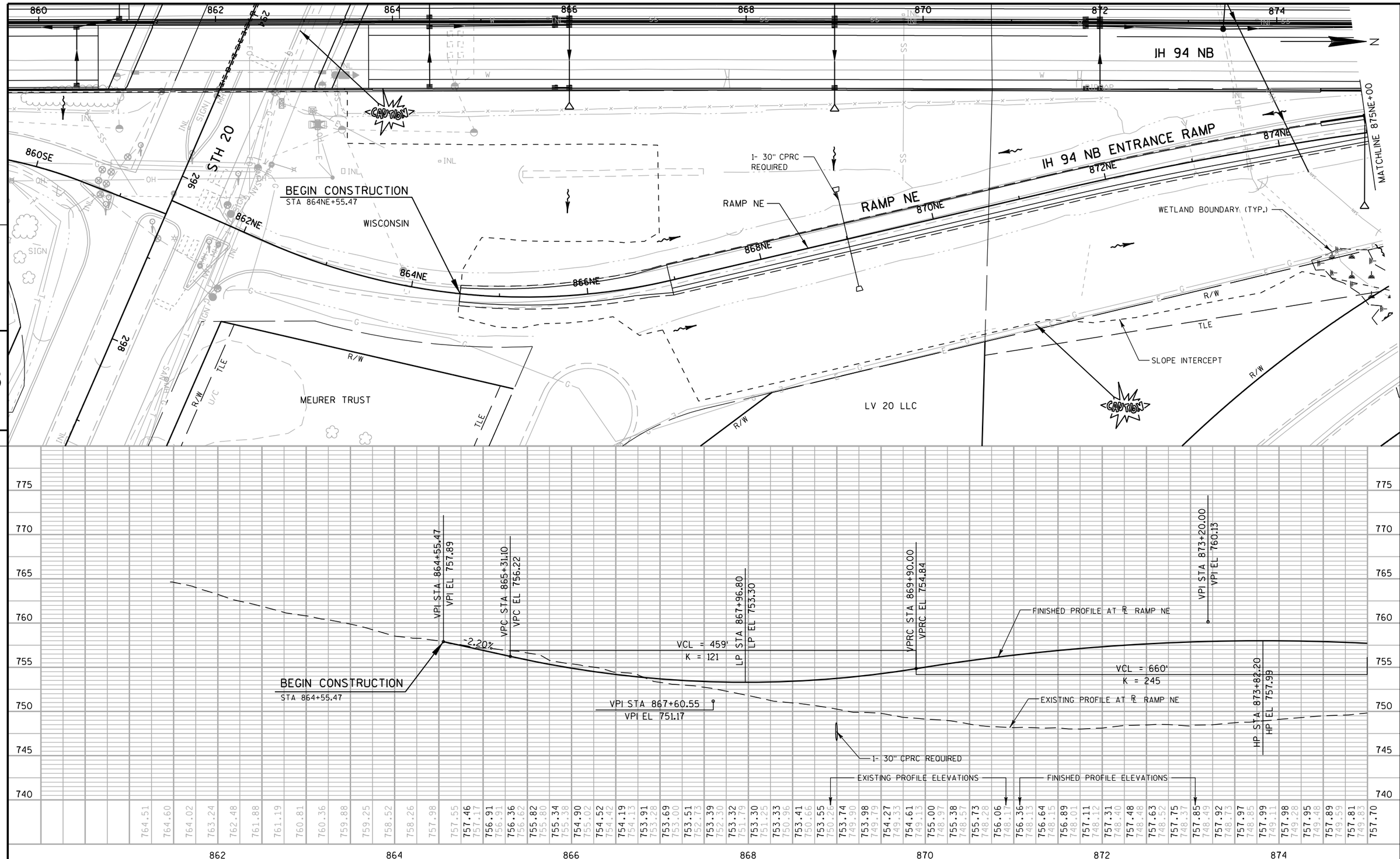
FINISHED PROFILE ELEVATIONS

790 785 780 775 770 765 760 755

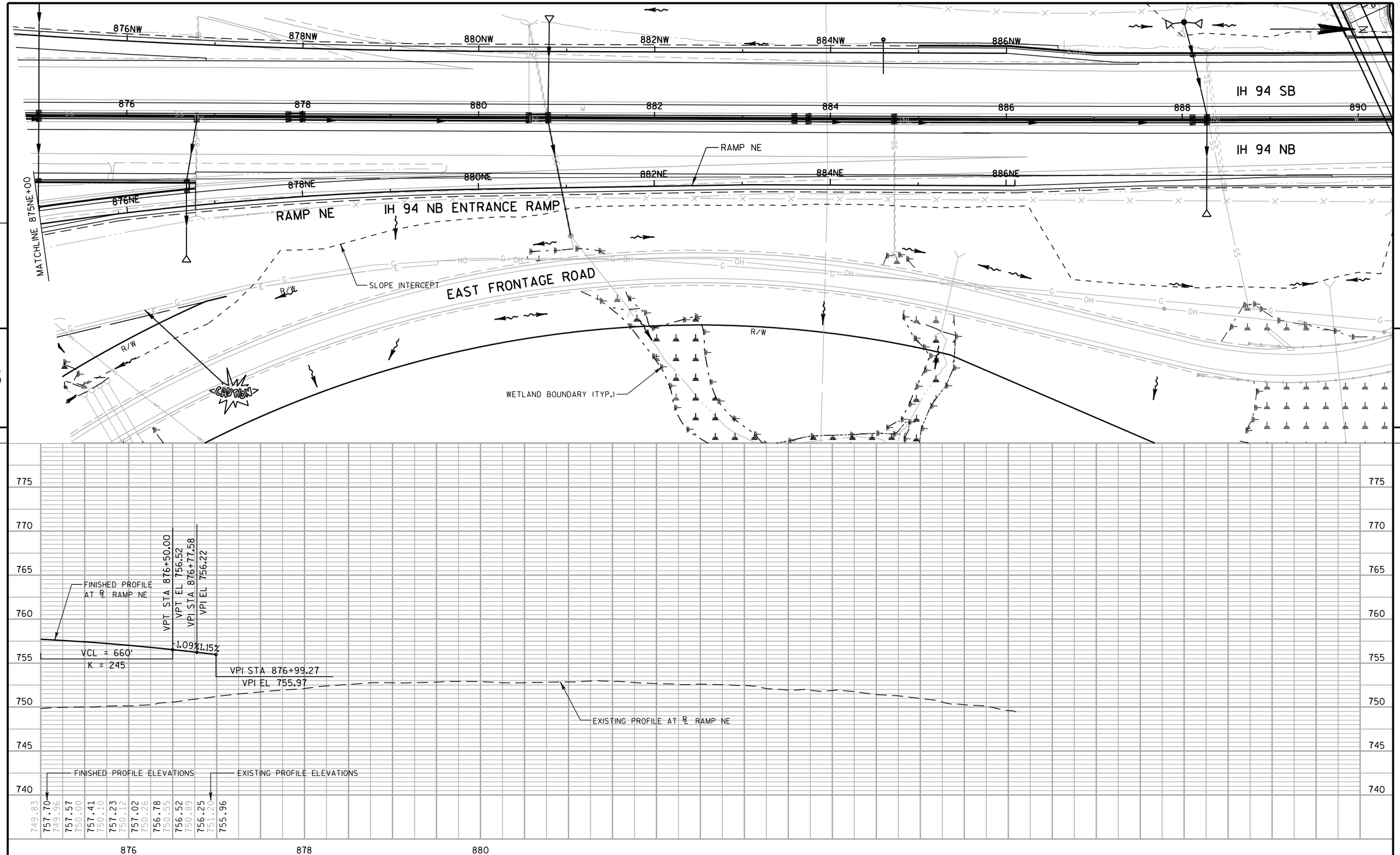
850	852	854	856
772.14	776.17	772.77	776.19
773.31	776.22	774.38	776.29
774.55	776.36	774.95	776.41
775.27	776.47	775.66	776.53
775.86	776.57	776.02	776.58
776.06	776.56	776.00	776.52
775.95	776.46	775.96	776.37
775.91	776.25	775.89	776.10
775.84	775.94	775.78	775.74
775.65	775.52	775.40	775.28
775.17	775.00	774.98	774.71
774.71	774.38	774.51	774.04
774.17	773.66	773.91	773.26
773.63	772.84	773.24	772.39
772.89	771.91	772.44	771.51
772.09	771.20	771.66	770.98
771.21	770.77	770.73	770.52
770.31	770.23	769.85	769.90
769.56	769.53	769.08	768.57
768.10	767.50	767.11	766.56
765.86	765.30	764.56	764.11
764.19	764.60	764.69	764.32

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN & PROFILE: RAMP SE	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\050112_pp.dgn PLOT DATE : 15-NOV-2013 16:13 PLOT BY : MSCAMG PLOT NAME : 050112_pp PLOT SCALE : 100.0002:1



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN & PROFILE: RAMP NE	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	PLAN & PROFILE: RAMP NE	SHEET	E

WHISPERING WOODS DEVELOPMENT
TUBMAN
TUBMAN
GUTMAN
SLOPE INTERCEPT
WEST ABUTMENT
START BRIDGE
STA 66+37.92
EAST ABUTMENT
END BRIDGE
STA 68+46.92
I-94 ASSOCIATES
R/W
R/L CTH C
CTH C
BEGIN CONSTRUCTION
STA 65+95.00
END CONSTRUCTION
STA 68+75.00
R-51-44
R-51-45
B-51-131
PLUMBER &
STEAMFITTERS
FOOTBRIDGE
A O A INVESTMENTS
PACKEE
WEST FRONTAGE ROAD
IH 94 SB
IH 94 NB
EAST FRONTAGE ROAD
WETLAND BOUNDARY (TYP.)
I-94 ASSOCIATES
58
60
62
64
66
68
70
72
5
5

VPI STA 67+75.00
VPI EL 777.85
BEGIN CONSTRUCTION
STA 65+95
FINISHED PROFILE AT ℄ CTH C
END CONSTRUCTION
STA 68+75
EXISTING PROFILE AT ℄ CTH C
2.32%
-4.22%
VPT STA 62+70.00
VPT EL 766.15
VPC STA 63+95.00
VPC EL 769.05
66+64.52
772.17
VCL = 760'
K = 116
VPT STA 71+55.00
VPT EL 761.83
VPI STA 72+14.92
VPI EL 759.30
EXISTING PROFILE ELEVATIONS
FINISHED PROFILE ELEVATIONS

| | | |

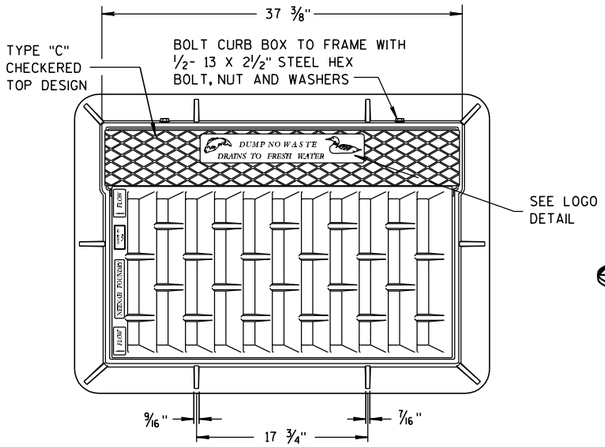
Standard Detail Drawing List

08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08B10-01	MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT
08C06-01	INLETS 3-FT AND 4-FT DIAMETER
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D14-01	SLOTTED VANE DRAIN
08D15-04A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08D15-04B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D15-04C	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08E04-02	SOD OR MASONRY AND SOD DITCH CHECKS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
08F10-01	CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH
09B02-07	CONDUIT
09B04-10	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C03-03	TRANSFORMER/PEDESTAL BASES
09D01-04	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D03-02	POST MOUNTED CONTROLLER SERVICE INSTALLATION
09E01-12D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09F08-03	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)
10A01-02	ELECTRICAL HANDHOLE WIRING
10A02-02	IDENTIFICATION PLAQUES LIGHT POLES
10A04-02	IDENTIFICATION PLAQUES UNDERDECK AND HIGH MAST LIGHTING
11B02-02	CONCRETE MEDIAN NOSE
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A03-05	CONCRETE PAVEMENT SHOULDERS
13B02-06	CONCRETE PAVEMENT APPROACH SLAB
13C01-16	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-11A	RURAL DOWELED CONCRETE PAVEMENT
13C11-11B	RURAL DOWELED CONCRETE PAVEMENT
13C17-01A	CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI
13C17-01B	CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI
13C18-02A	CONCRETE PAVEMENT JOINTING
13C18-02B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-02C	CONCRETE PAVEMENT JOINT TIES
13C18-02D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-01A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B28-02	GUARDRAIL MOW STRIP
14B32-02A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-02B	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-02C	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-02D	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-02E	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B33-01G	CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR
14B33-01H	CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR

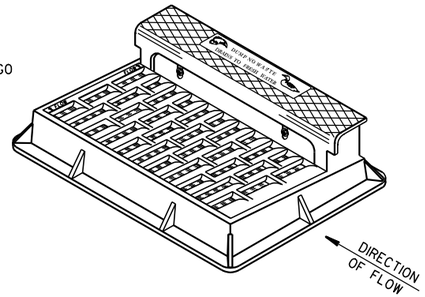
Standard Detail Drawing List

14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-01A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-01C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A02-07	DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A06-02	DELINEATOR LAYOUT
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-01	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C11-05	FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15D03-02	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D07-03	TRAFFIC CONTROL, TEMPORARY EXIT RAMP CROSSOVER
15D08-04	TRAFFIC CONTROL, TEMPORARY ENTRANCE RAMP CROSSOVER
15D12-03	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-02	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D21-02	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D29-03	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

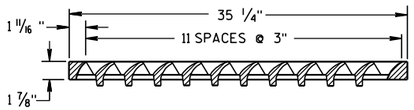
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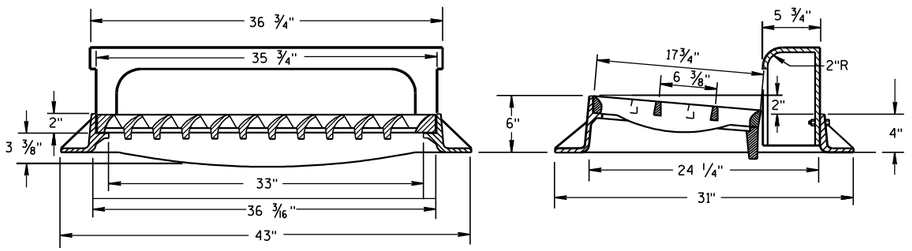


NOTE:
GRATE IS REVERSIBLE.



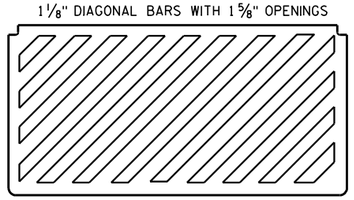
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"





TYPE "H"

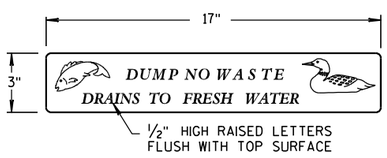
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 159 LBS.)
GRATE..... 159 LBS.

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL

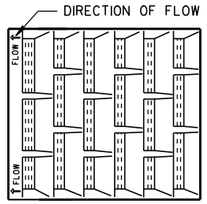
GENERAL NOTES

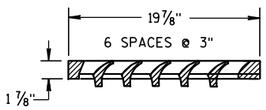
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

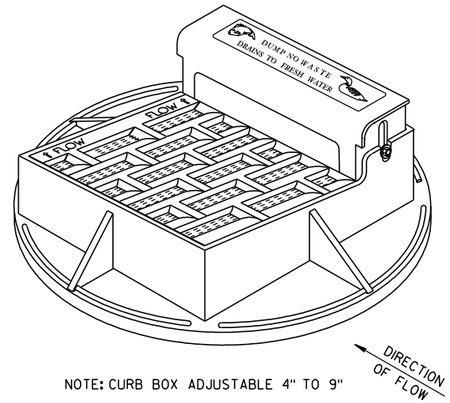
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

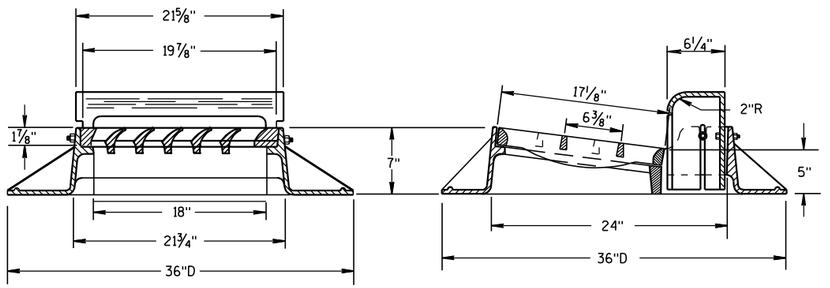
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





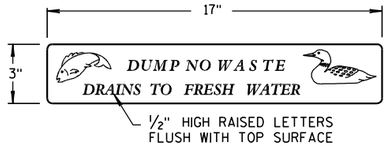


NOTE: CURB BOX ADJUSTABLE 4" TO 9"



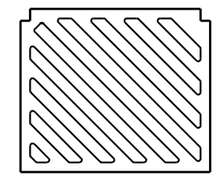
TYPE "A"

(APPROXIMATE WEIGHT 340 LBS.)
FRAME..... 185 LBS.
GRATE..... 71 LBS.
CURB BOX..... 84 LBS.



LOGO DETAIL

NOTE:
GRATE IS REVERSIBLE.



SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8"
GRATE..... 84 LBS.

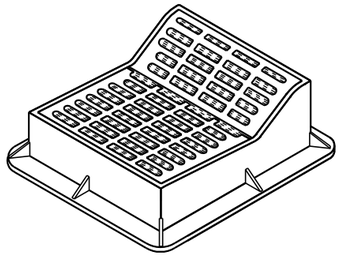
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

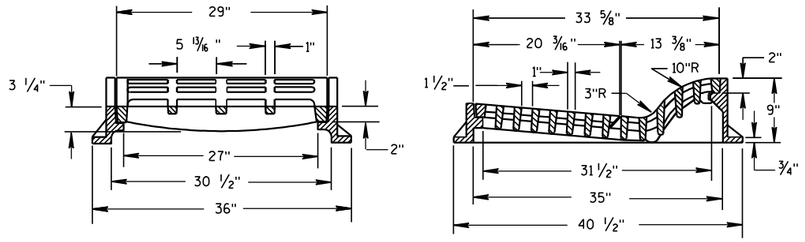
INLET COVERS TYPE A, H, A-S, & H-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 DATE
/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 8 A 5-18a



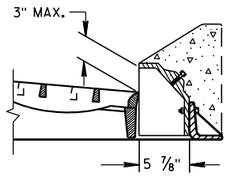


TYPE "F"

(APPROXIMATE WEIGHT 644 LBS.)

FRAME.....302 LBS.
GRATE.....160 LBS.
GRATE.....182 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT CURB BOX 68 LBS.)

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

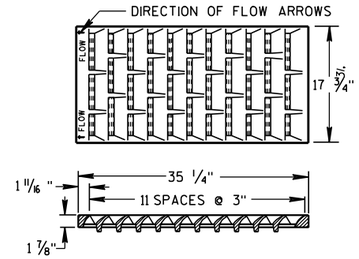
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

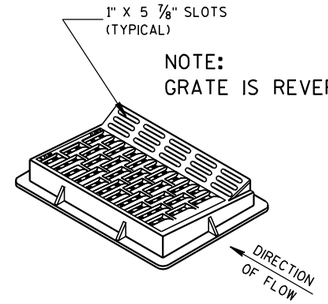
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

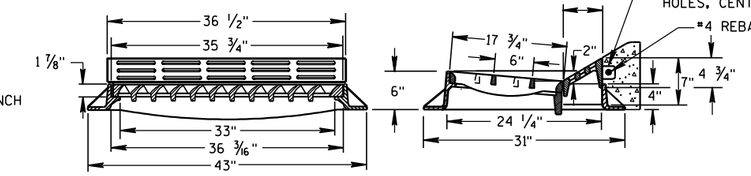
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





NOTE:
GRATE IS REVERSIBLE.

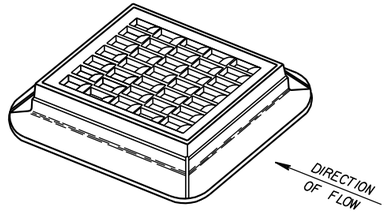


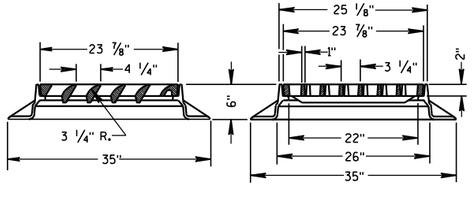
TYPE "HM"

(APPROXIMATE WEIGHT 414 LBS.)
FRAME..... 181 LBS.
GRATE..... 159 LBS.
CURB BOX..... 74 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

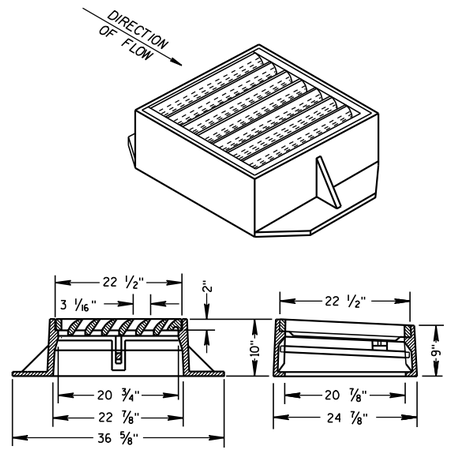




TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

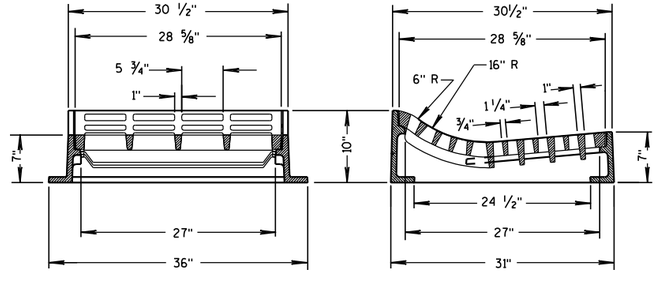
FRAME.....164 LBS.
GRATE..... 169 LBS.



TYPE "V"

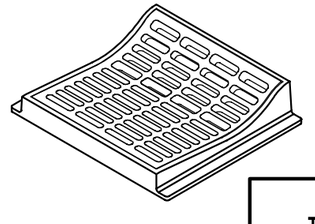
(APPROXIMATE WEIGHT 410 LBS.)

FRAME..... 269 LBS.
GRATE..... 136 LBS.
SAFETY BAR..... 5 LBS.



TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)
FRAME.....270 LBS.
GRATE.....260 LBS.
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.



INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

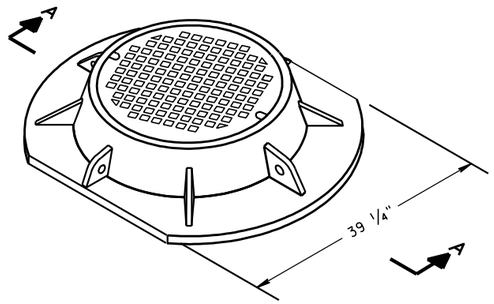
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
354
FHWA

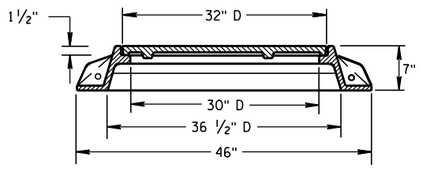
6

S.D.D. 8 A 5-18c

6

S.D.D. 8 A 5-18c



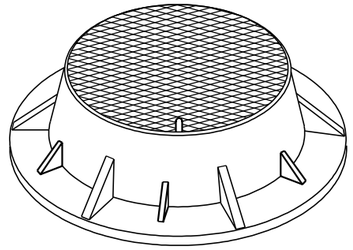


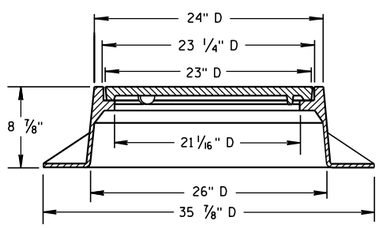
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.

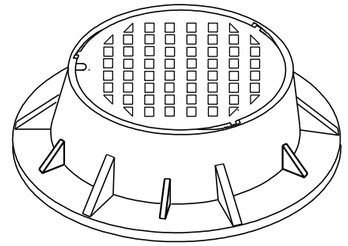


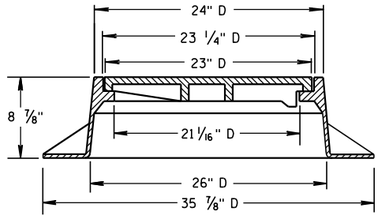


TYPE "J"

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....152 LBS.
LID.....115 LBS.





TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....158 LBS.
LID.....109 LBS.

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

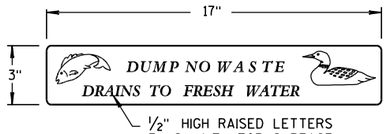
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

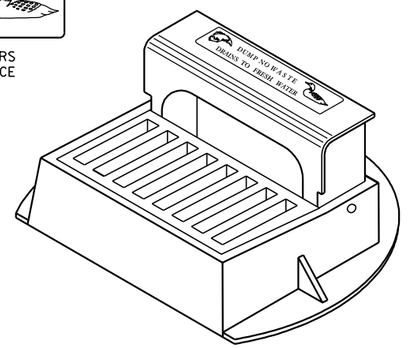
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

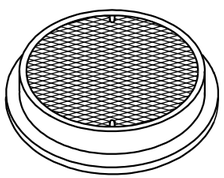
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

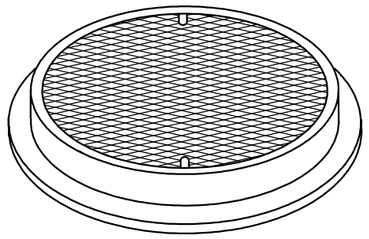
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

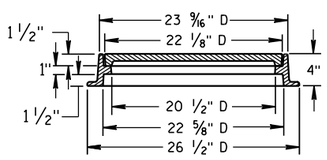


LOGO DETAIL





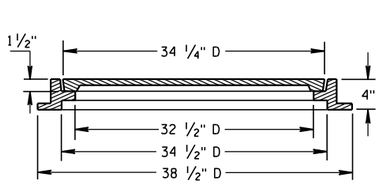




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

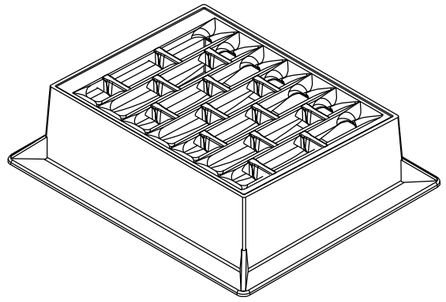
FRAME.....81 LBS.
LID.....77 LBS.

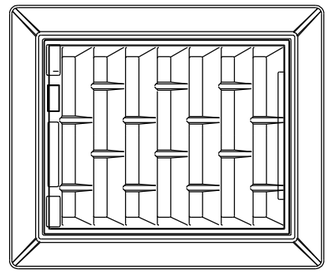


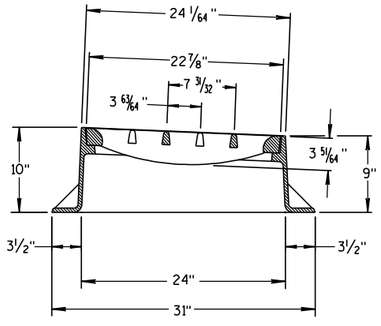
TYPE "M"

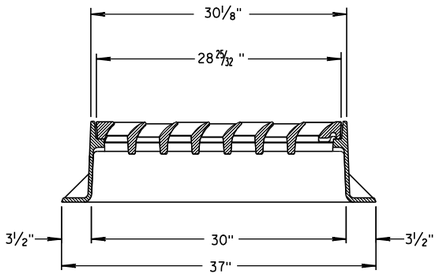
(APPROXIMATE WEIGHT 377 LBS.)

FRAME..... 125 LBS.
LID..... 252 LBS.

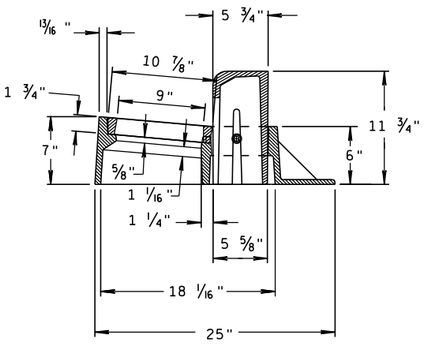


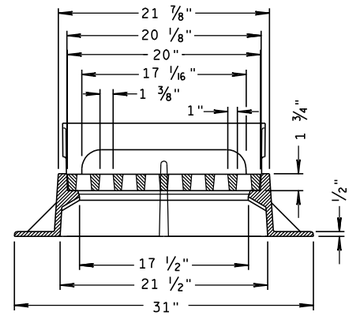






INLET COVER TYPE "BW"





INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 344 LBS.)

FRAME.....206 LBS.
GRATE..... 46 LBS.
CURB BOX..... 92 LBS.

INLET COVERS, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zaa
ROADWAY STANDARDS | 355
ENGINEER

FHWA

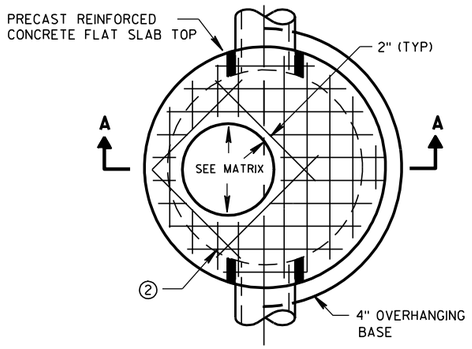
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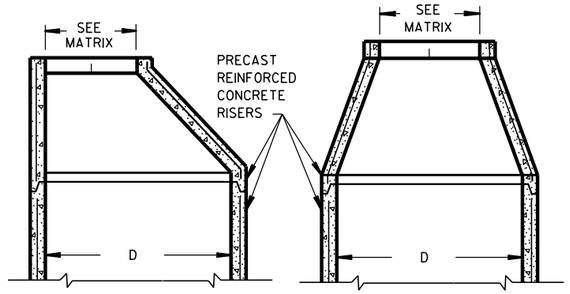
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S.D.D. 8 A 5-18d

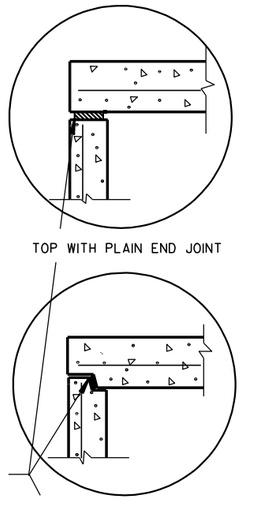


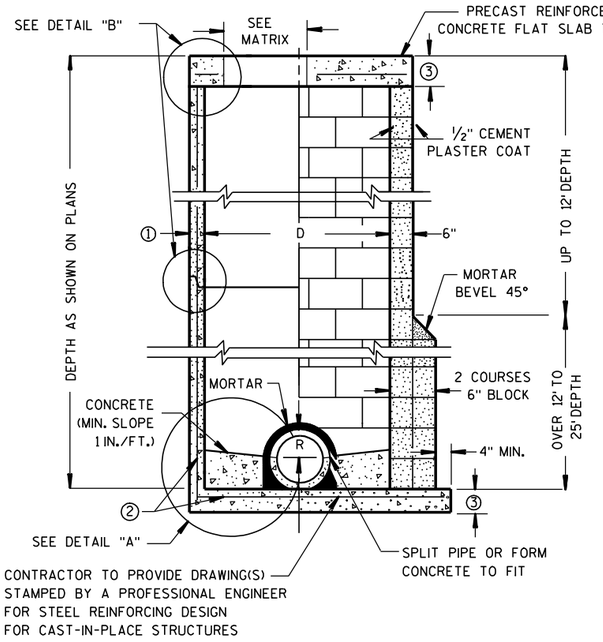
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

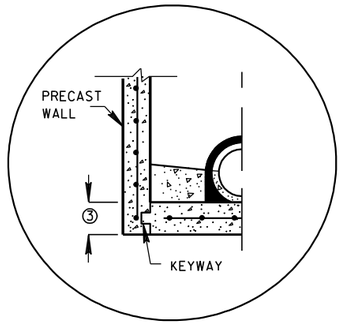
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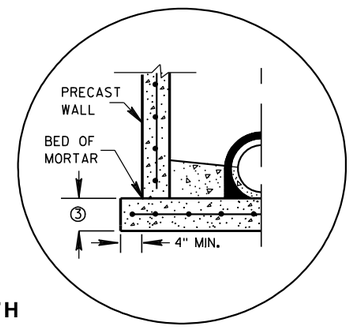


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

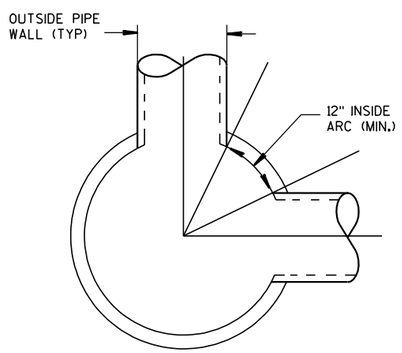


PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION

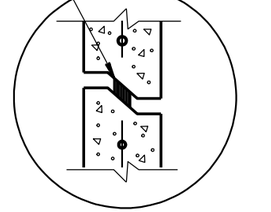


SEPERATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

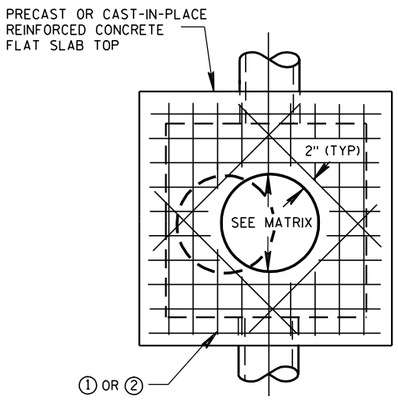
APPROVED

6/5/2012
DATE

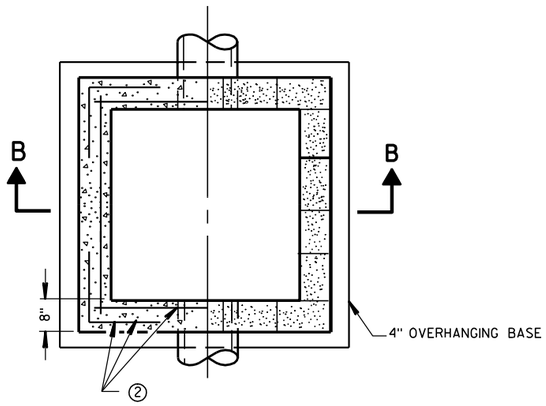
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

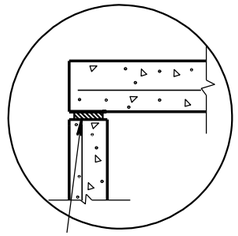
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S.D.D. 8 B 9-1



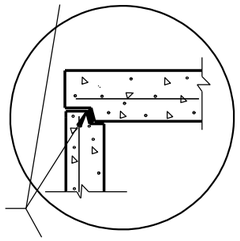
PLAN VIEW
CIRCULAR OPENING



SECTION A-A
PLAN VIEW

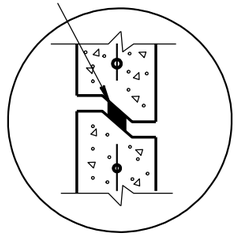


TOP WITH PLAIN END JOINT



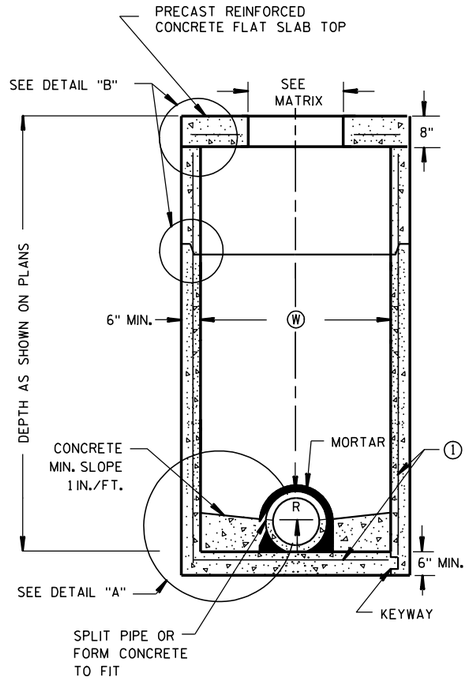
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT

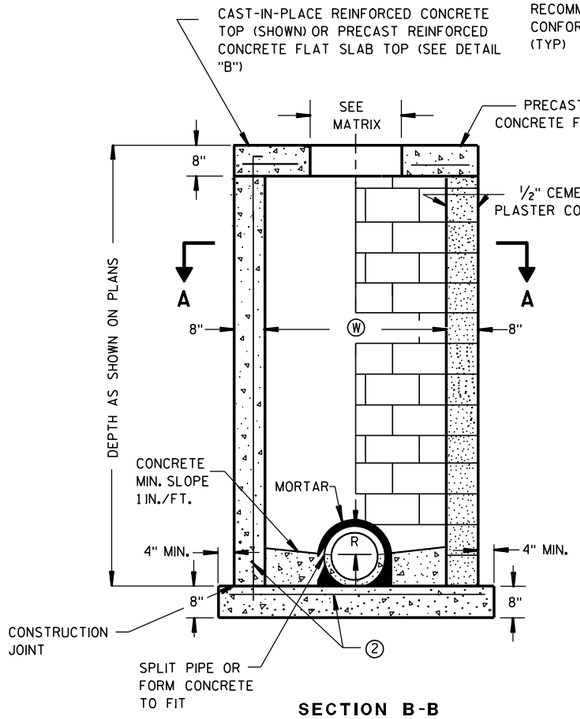


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

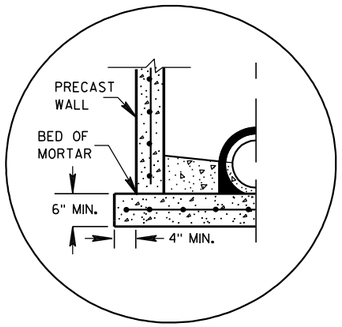


SECTION B-B

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

CAST-IN-PLACE REINFORCED CONCRETE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN WIDTH.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "C". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

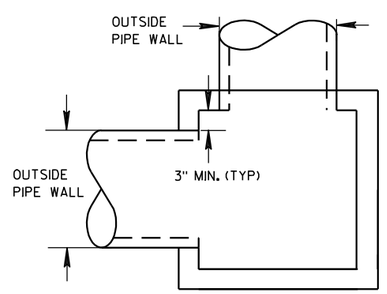
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH Ⓦ (IN)	LENGTH Ⓛ (IN)
3X3-FT	24	24
4X4-FT	30	30
5X5-FT	42	42
6X6-FT	54	54



DETAIL "C"

SQUARE MANHOLES W/ FLAT TOP

MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT

MANHOLES 3X3-FT, 4X4-FT
5X5-FT AND 6X6-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

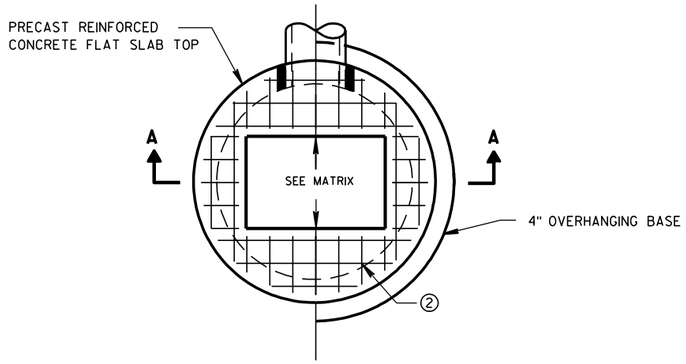
APPROVED
6/5/2012
DATE
/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER
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FHWA

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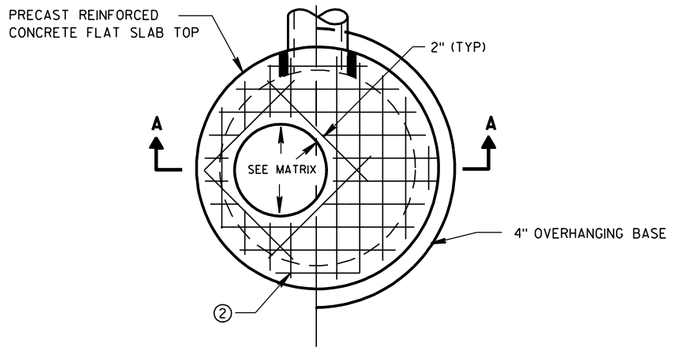
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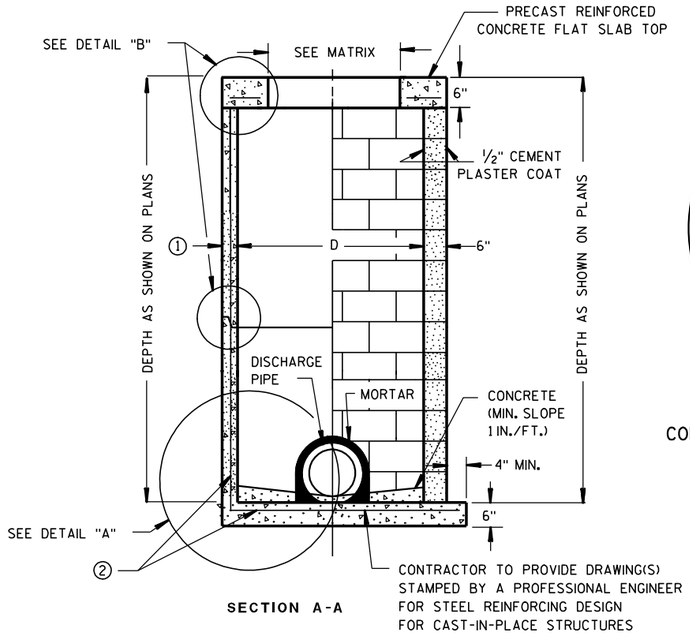
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PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

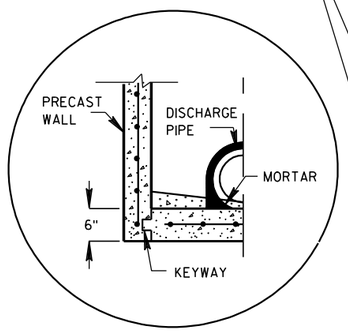


SECTION A-A

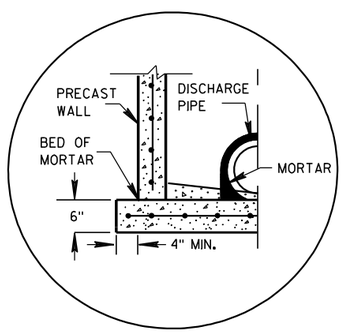
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

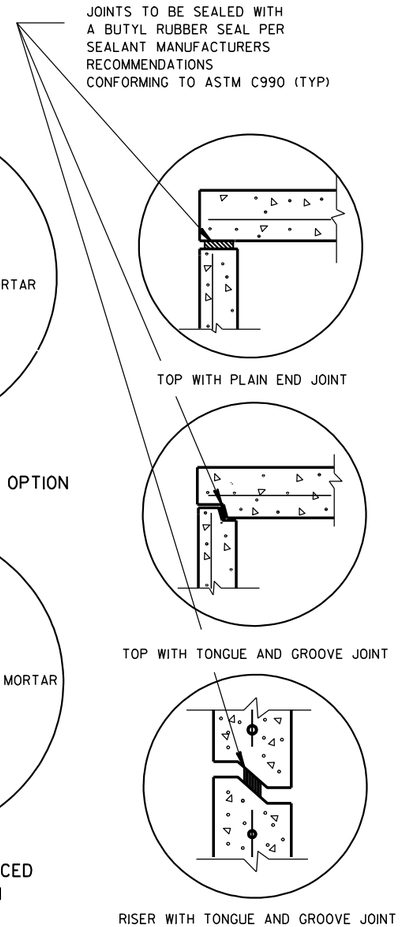


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "B"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

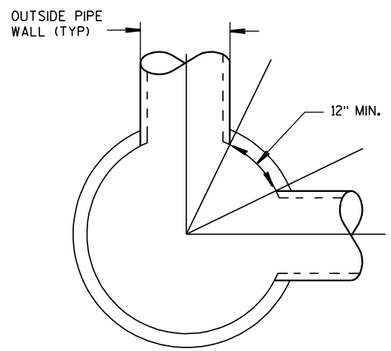
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

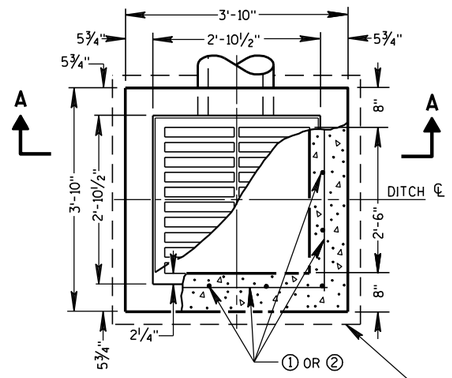
INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

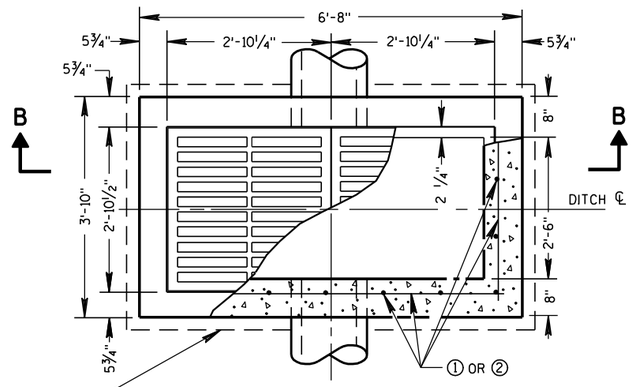
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 8 C 6-1

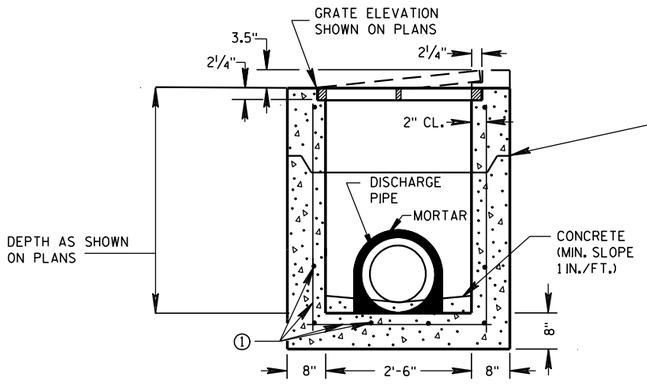


PLAN VIEW

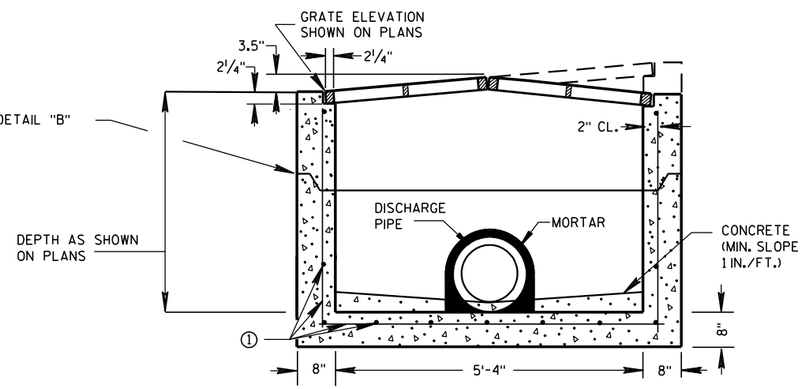


PLAN VIEW

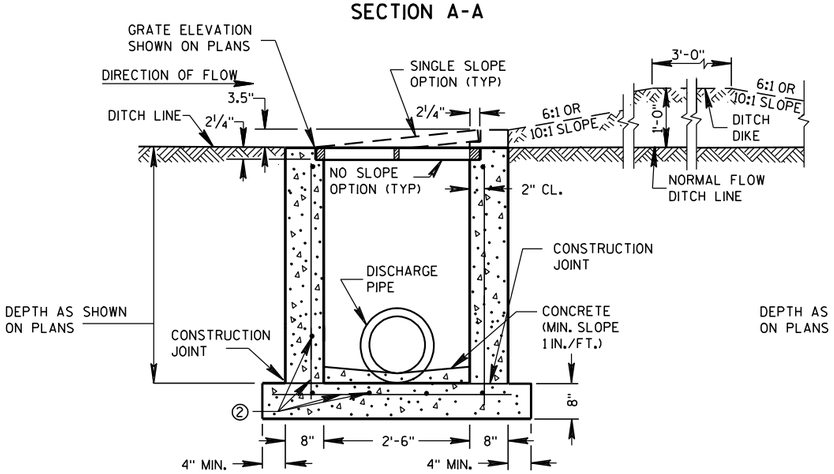
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



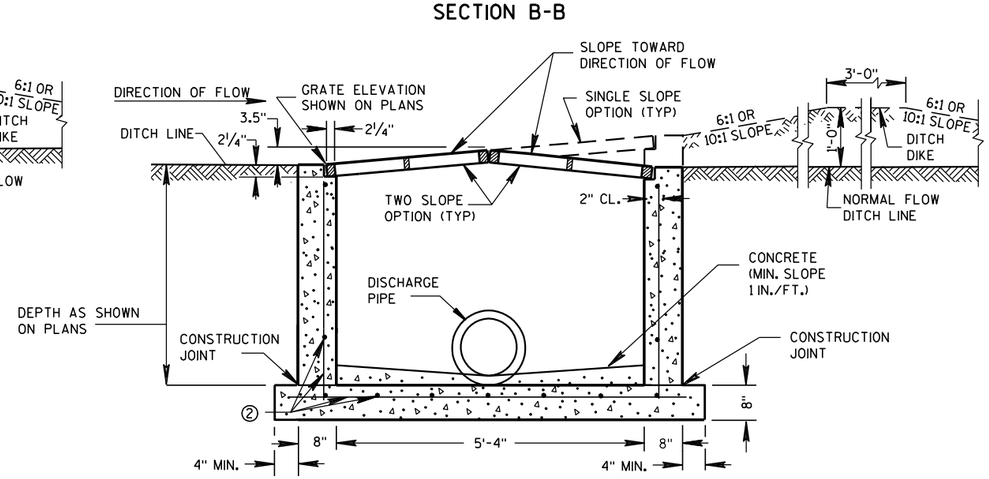
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

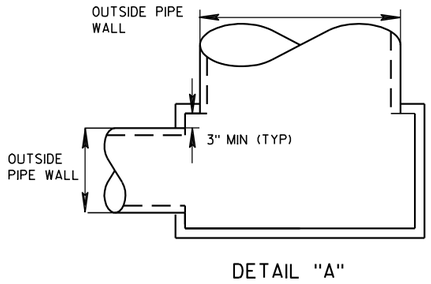
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

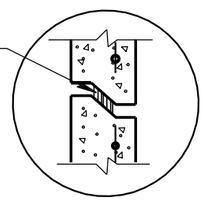
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

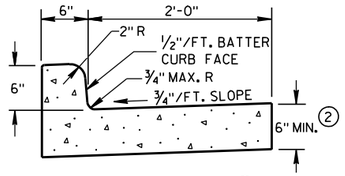
FHWA

6

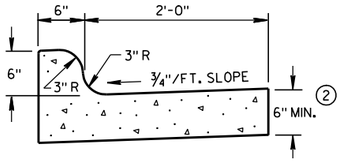
S.D.D. 8 C 8-1

6

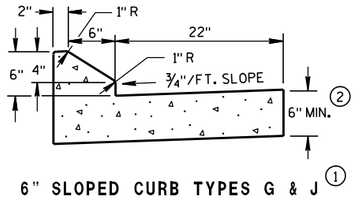
S.D.D. 8 C 8-1



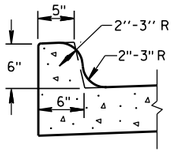
TYPES A & D (1)



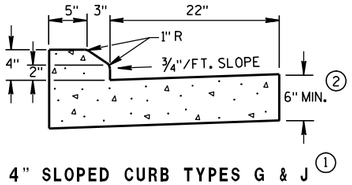
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

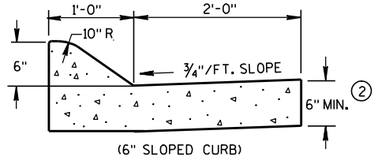


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

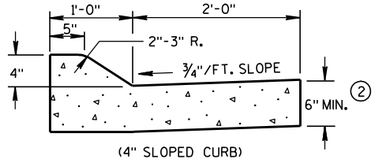


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

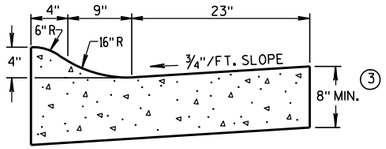


(6" SLOPED CURB)



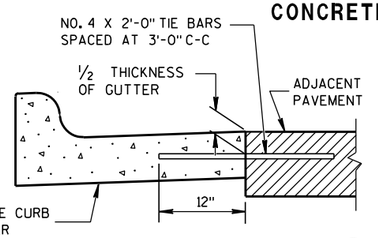
(4" SLOPED CURB)

TYPES A & D (1)

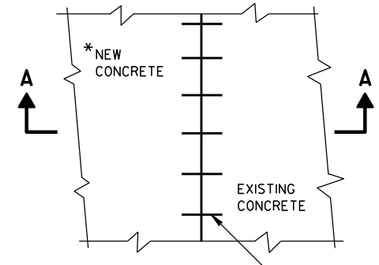


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

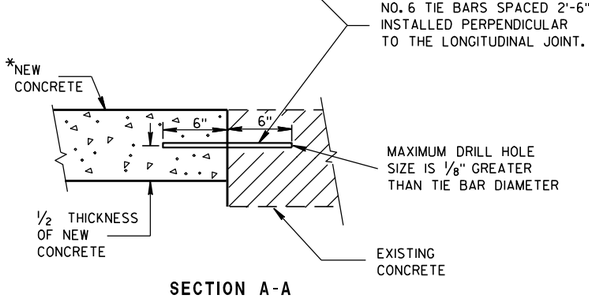


TYPICAL TIE BAR LOCATION (1)



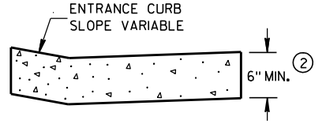
*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

PLAN VIEW



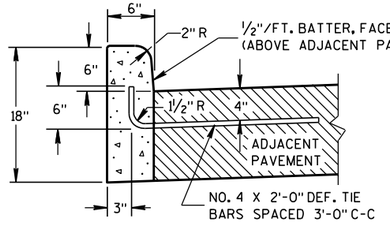
SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT

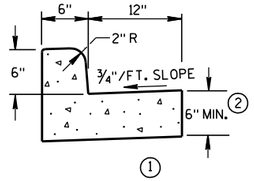


DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)

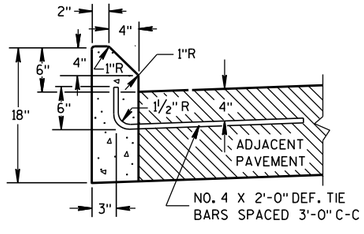


(1)
TYPES A & D



(1)
TYPES A & D

CONCRETE CURB & GUTTER 18"

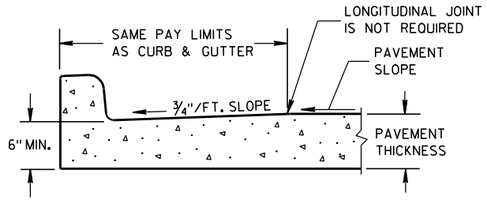


(1)
TYPES G & J

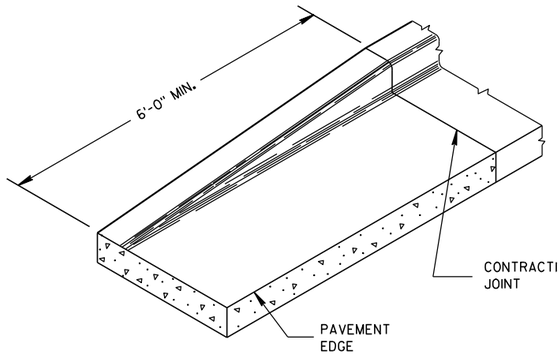
CONCRETE CURB

REVERSE SLOPE GUTTER (5)

(TYPICAL FOR ALL CURB & GUTTER TYPES)



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

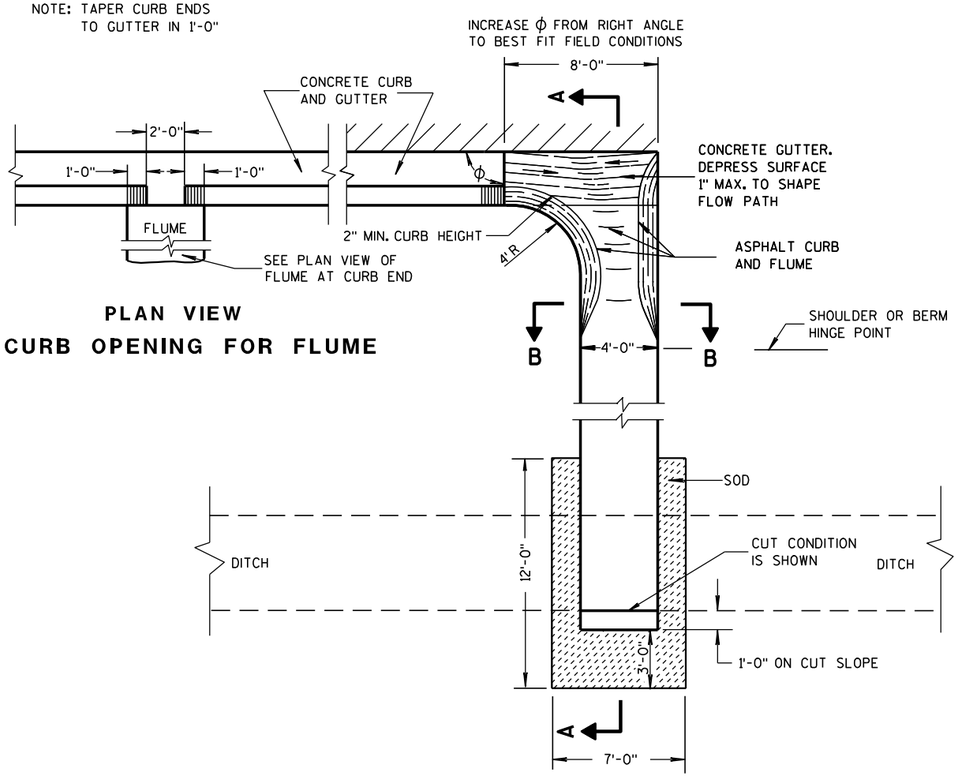
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/4/08 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

6

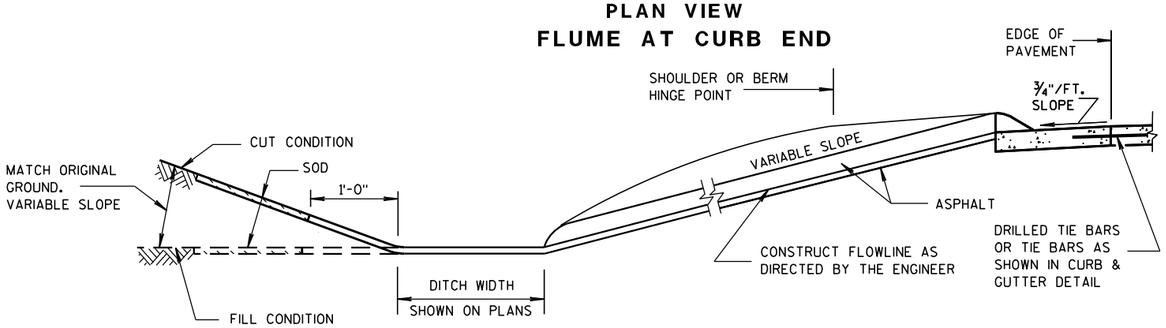
S.D.D. 8 D 1-17

ASPHALTIC FLUME

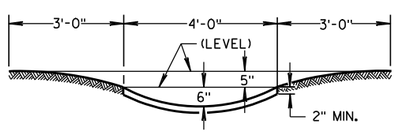


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

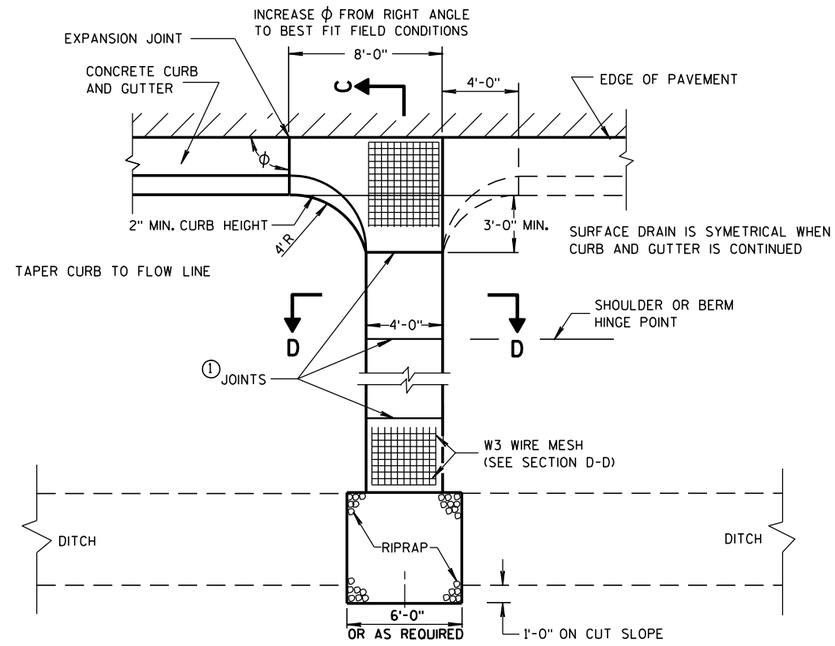
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE ⅛ TO ¼ INCH WIDE BY 1½ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

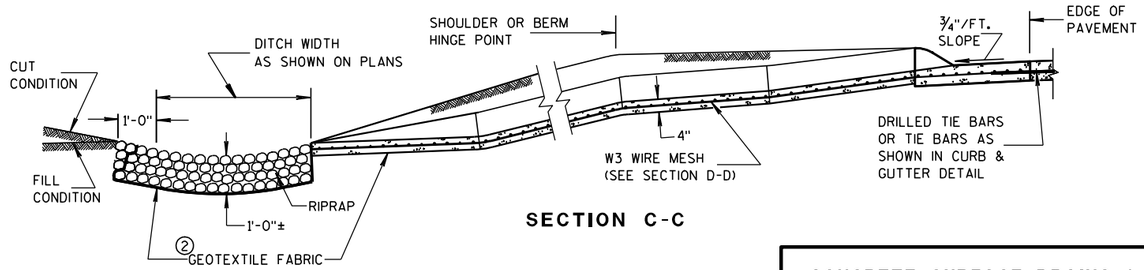
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

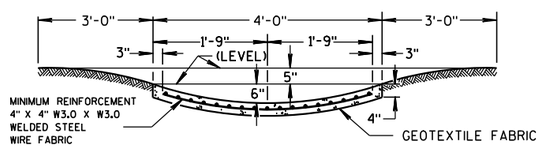
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

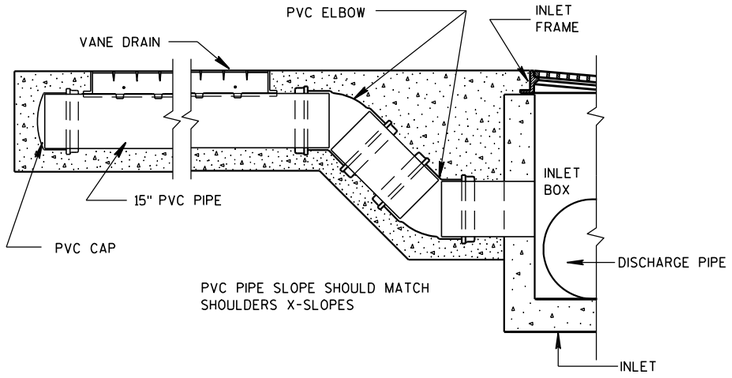
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA

6

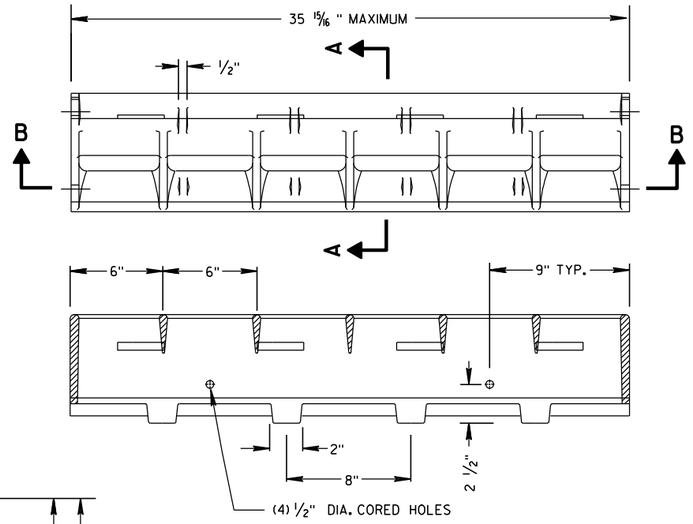
S.D.D. 8 D 4-5

6

S.D.D. 8 D 4-5



TYPICAL SLOTTED VANE DRAIN CONFIGURATION



SECTION B-B

SLOTTED VANE DRAIN DETAIL

(APPROXIMATE WEIGHT 87 LBS.)

GENERAL NOTES

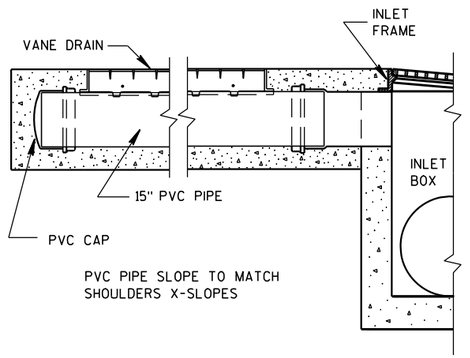
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ENCASEMENT: THE ENCASING MATERIAL AROUND THE PIPE SHALL BE IN ACCORDANCE WITH SPECIFICATIONS OF 501.4.3.3 FOR CONCRETE PAVEMENT.

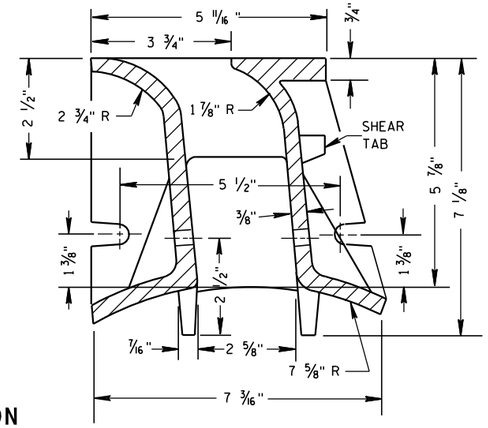
THE PIPE USED SHALL BE A 15" DIAMETER SDR-35 POLYVINYL CHLORIDE SEWER PIPE. THE PIPE SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN STANDARD SPECIFICATION 612.2.6

SURFACE DRAIN: BEFORE PAVING OVER THE DRAIN, COVER THE TOP OF THE DRAIN TO KEEP MATERIAL OUT OF THE PIPE. THE FINISHED GRADE SHOULD BE FLUSH WITH THE TOP OF THE DRAIN.

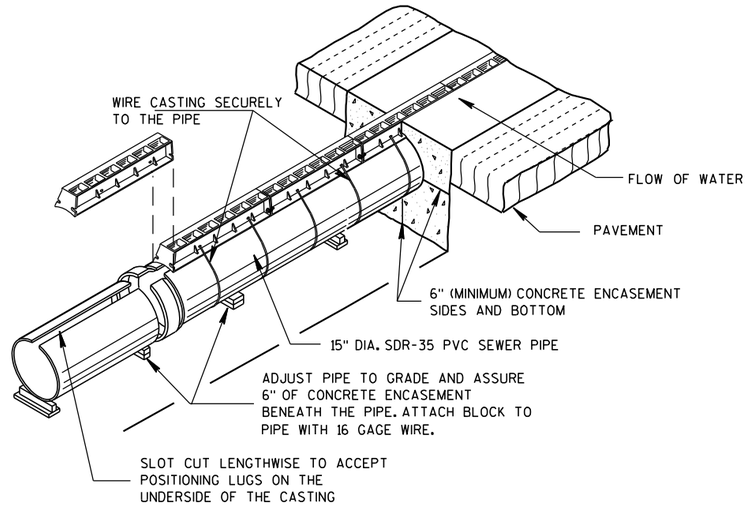
THE ANGLE OF THE DRAIN TO THE FLOW OF WATER SHOULD BE AS CLOSE TO 90° AS POSSIBLE.



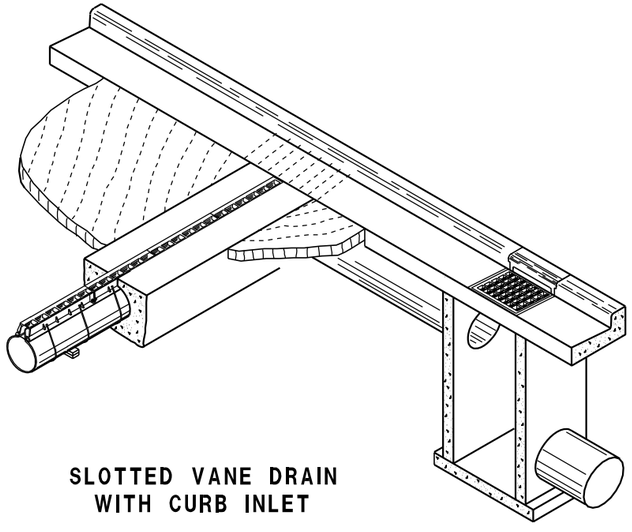
TYPICAL SLOTTED VANE DRAIN CONFIGURATION



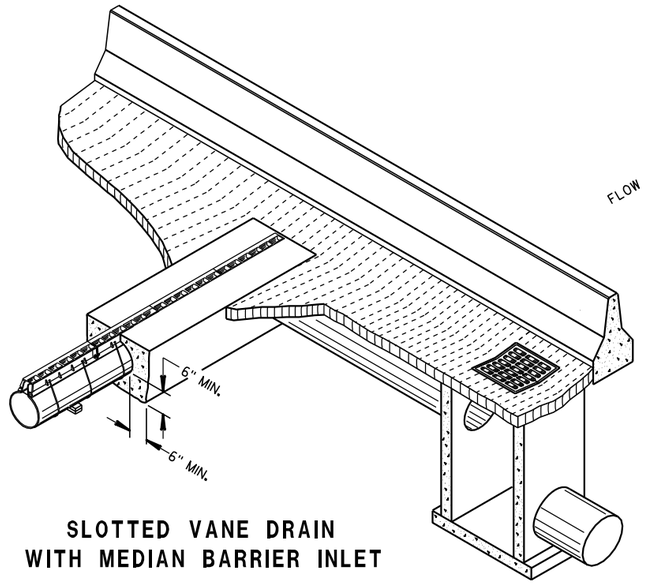
SECTION A-A



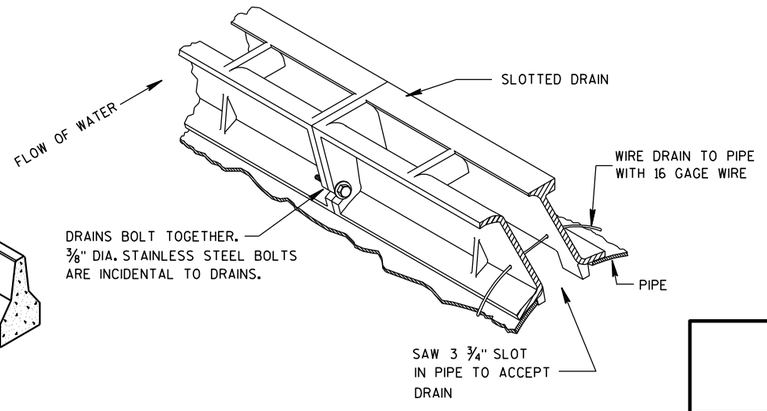
INSTALLATION OF SLOTTED VANE DRAIN



SLOTTED VANE DRAIN WITH CURB INLET



SLOTTED VANE DRAIN WITH MEDIAN BARRIER INLET



ISOMETRIC VIEW

SLOTTED VANE DRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/13/00 DATE — /S/ Rory L. Rhinehart, CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6 S.D.D. 8 D 14-1

6 S.D.D. 8 D 14-1

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

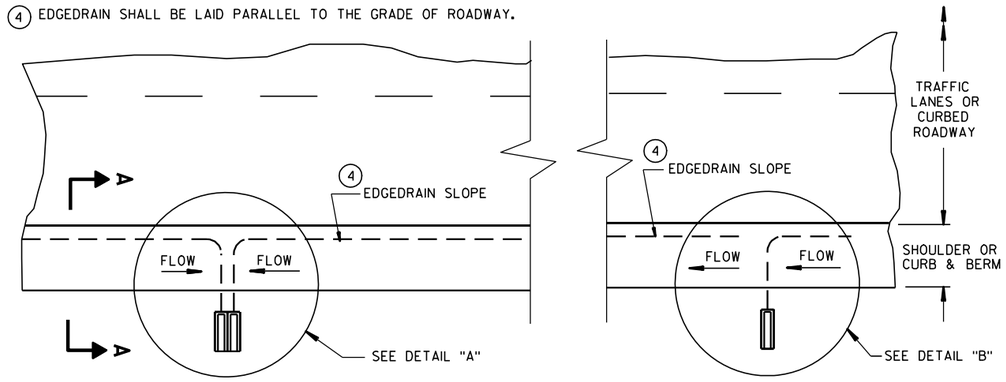
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

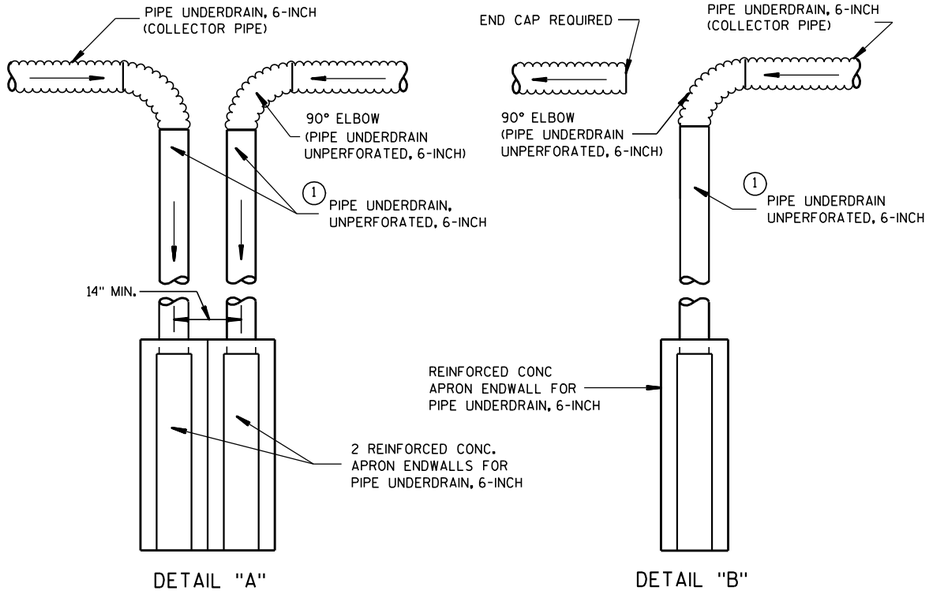
(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS

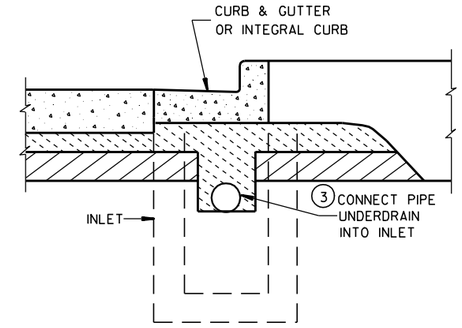
(EDGEDRAIN OUTLETS TO ROADSIDE) (2)



DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS

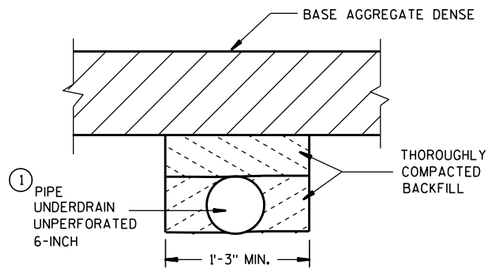
DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



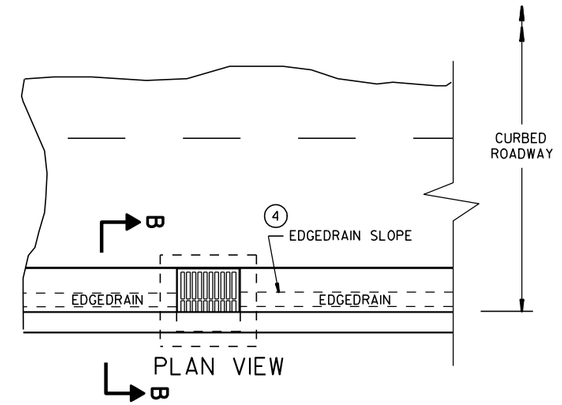
SECTION B-B

URBAN CROSS SECTION



SECTION C-C

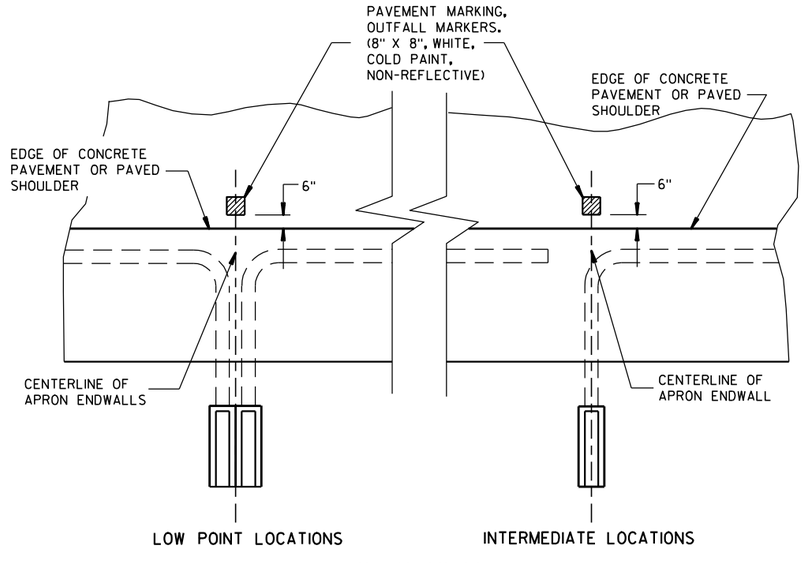
(TRENCH FOR OUTFALL PIPE)



PLAN VIEW

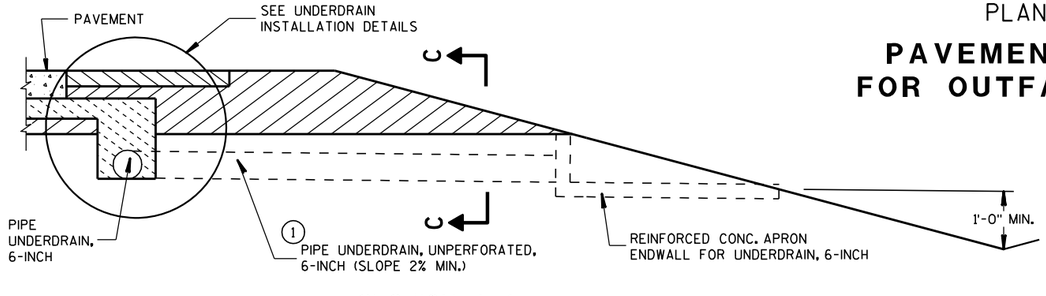
ROADWAY WITH CURBS

(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)



PLAN VIEW

PAVEMENT MARKING FOR OUTFALL MARKERS



SECTION A-A

RURAL CROSS SECTION

EDGEDRAIN OUTLET AND OUTFALL MARKERS

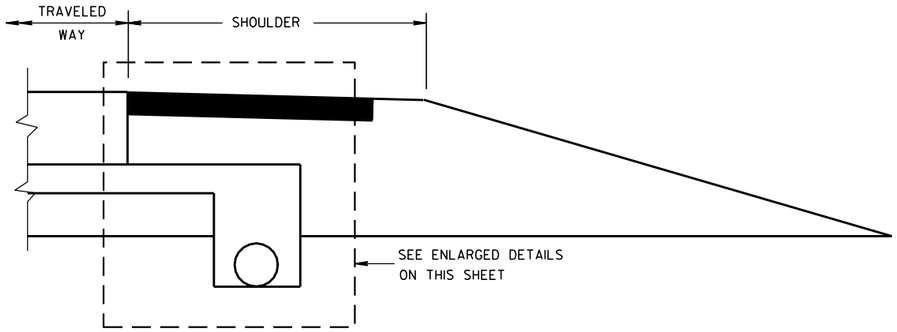
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 8 D 15-4a

6

S.D.D. 8 D 15-4a



RURAL CROSS SECTION

GENERAL NOTES

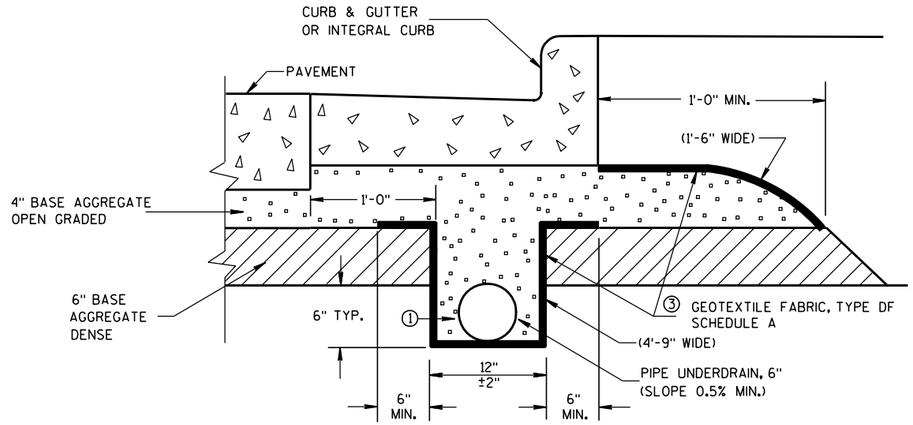
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

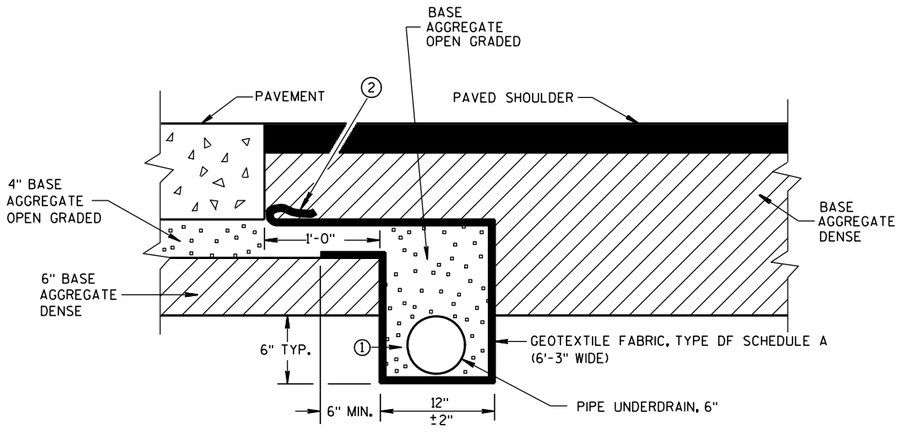
① TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED.

② FOLD OVER EXCESS GEOTEXTILE FABRIC AT THIS LOCATION.

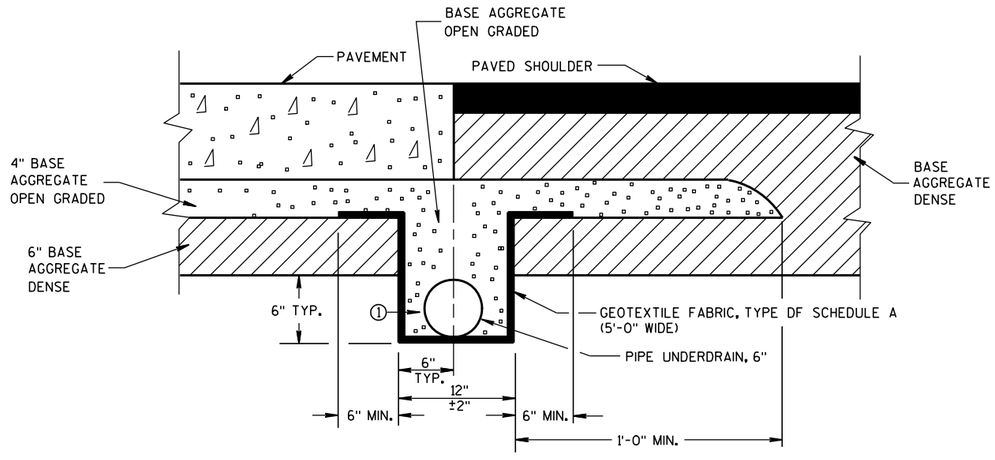
③ TOTAL FABRIC WIDTH IS 6'-3" FOR PAYMENT.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATE

EDGEDRAIN IN RURAL ROADWAY

EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

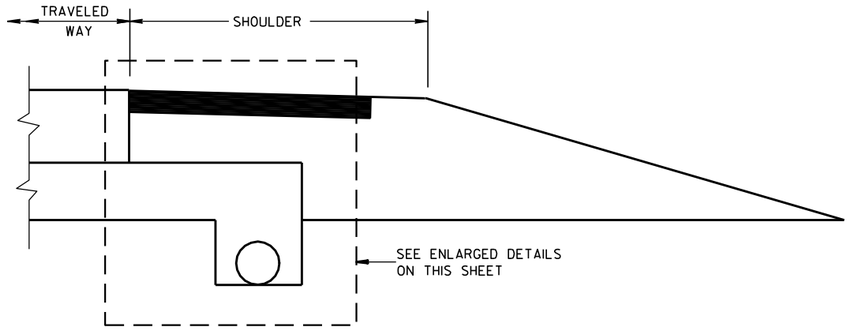
APPROVED

3/21/07 DATE — /S/ Steven W. [illegible] CHIEF MATERIALS MANAGER

FHWA

6

S.D.D. 8 D 15-4b



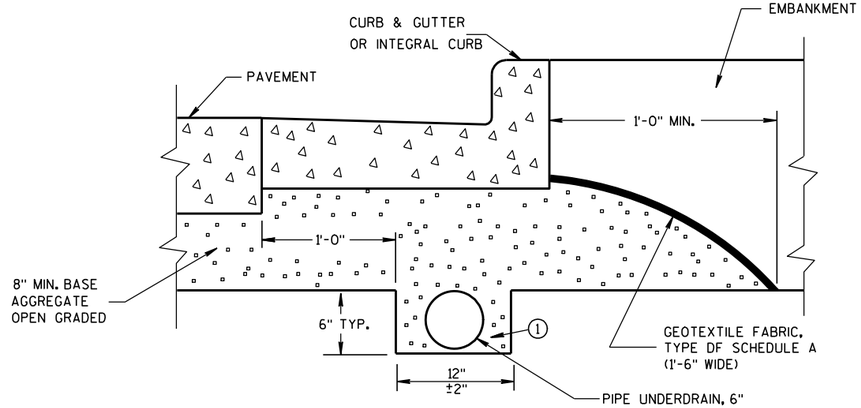
RURAL CROSS SECTION

GENERAL NOTES

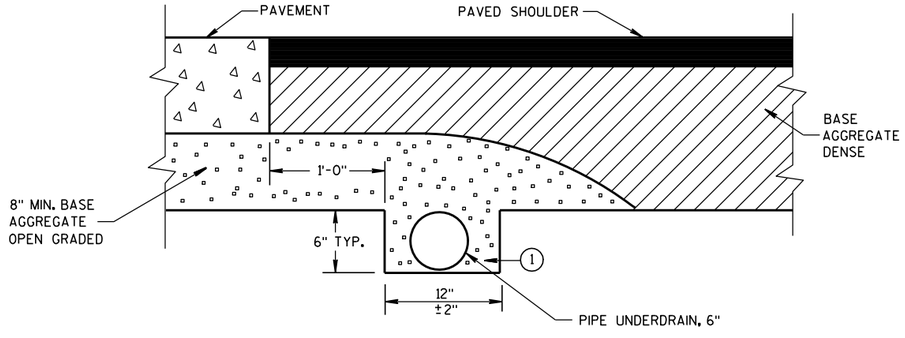
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

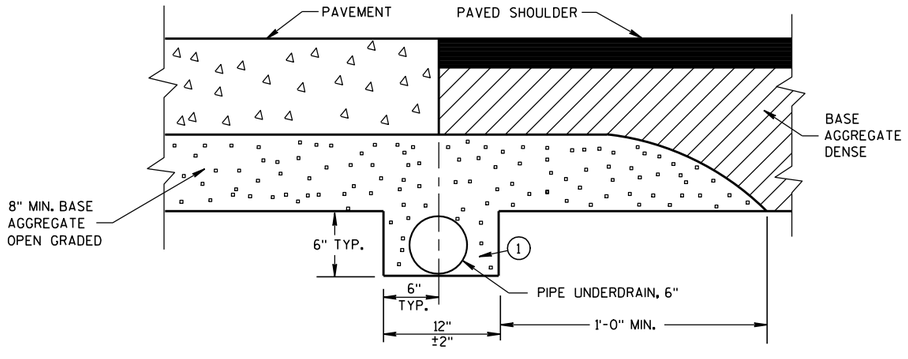
(1) TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

EDGEDRAIN IN RURAL ROADWAY

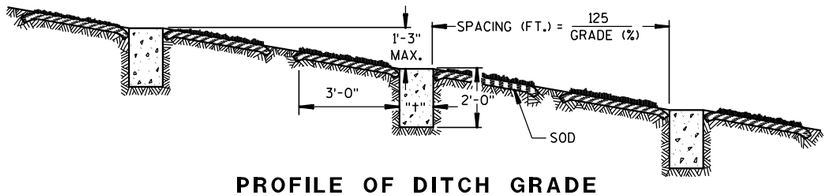
EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

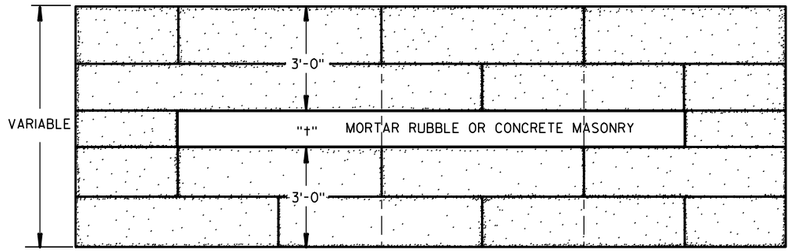
APPROVED
3/21/07 DATE
/S/ Steven W. Krebs
CHIEF MATERIALS MANAGER
FHWA

6

S.D.D. 8 D 15-4c

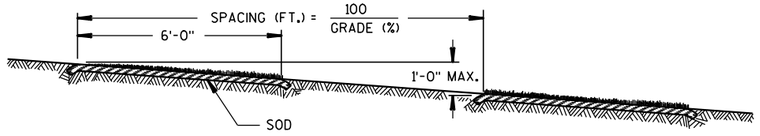


PROFILE OF DITCH GRADE

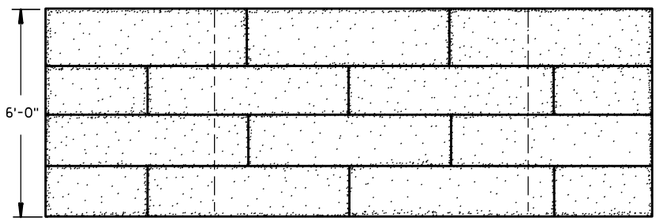


PLAN VIEW SHOWING MASONRY AND SOD

"+" - MASONRY THICKNESS SHALL BE 0'-9" FOR CONCRETE AND 1'-0" FOR MORTAR RUBBLE.



PROFILE OF DITCH GRADE



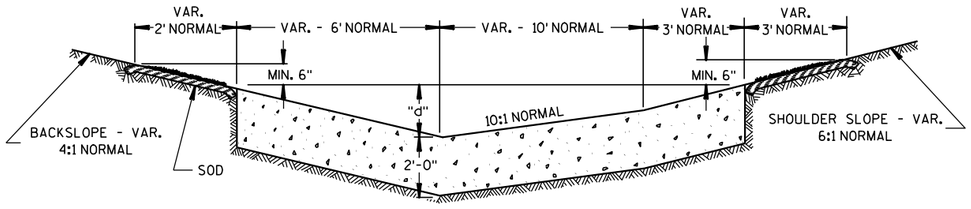
PLAN VIEW SHOWING SOD

GENERAL NOTES

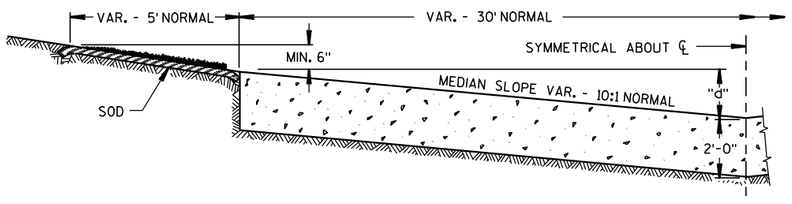
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALTERNATE DESIGNS FOR DITCH CHECKS, OF THE MATERIAL OR COMBINATION OF MATERIALS SHOWN HEREON, MAY BE USED UPON WRITTEN PERMISSION OF THE ENGINEER.

SOD STRIPS FOR DITCH CHECKS MAY BE PLACED EITHER TRANSVERSELY OR LONGITUDINALLY TO THE DIRECTION OF WATER FLOW.



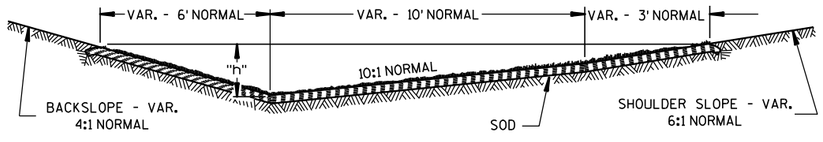
SIDE DITCH CROSS SECTION



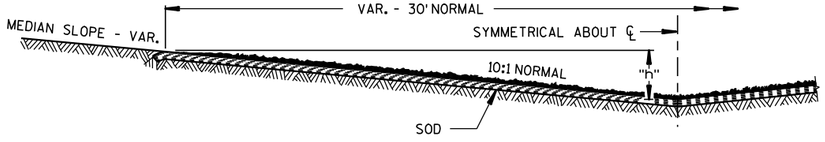
MEDIAN DITCH CROSS SECTION

"d" - THE MINIMUM DEPTH OF THE MASONRY PORTION OF THE DITCH CHECKS SHALL BE EQUAL TO THE MAXIMUM DEPTH OF FLOW. THE NORMAL "d" WILL BE 1'-6".

MASONRY AND SOD DITCH CHECKS



SIDE DITCH CROSS SECTION



MEDIAN DITCH CROSS SECTION

"h" - THE MINIMUM HEIGHT OF DITCH TO BE SODDED SHALL BE EQUAL TO THE MAXIMUM DEPTH OF FLOW PLUS 6". THE NORMAL "h" WILL BE 1'-6".

SOD DITCH CHECKS

SOD OR MASONRY AND SOD DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/7/71 — DATE

/S/ L.C. Harris — ACTING CHIEF DESIG

FHWA

366

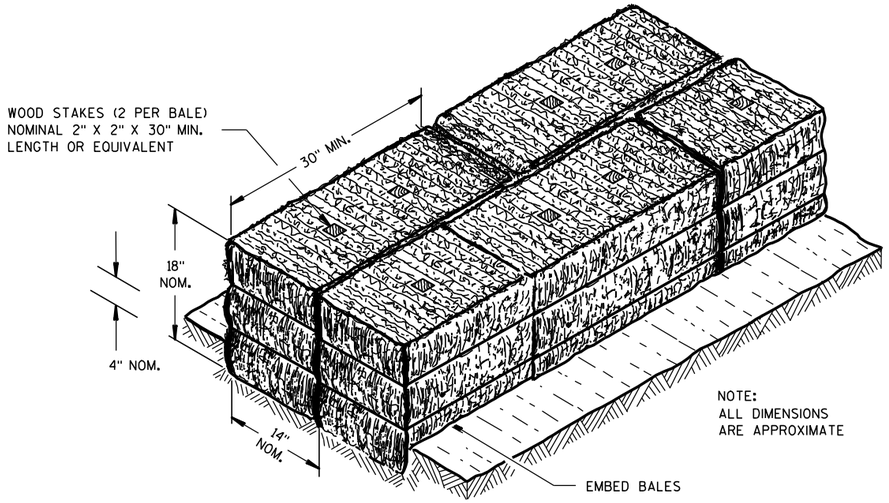
R

6

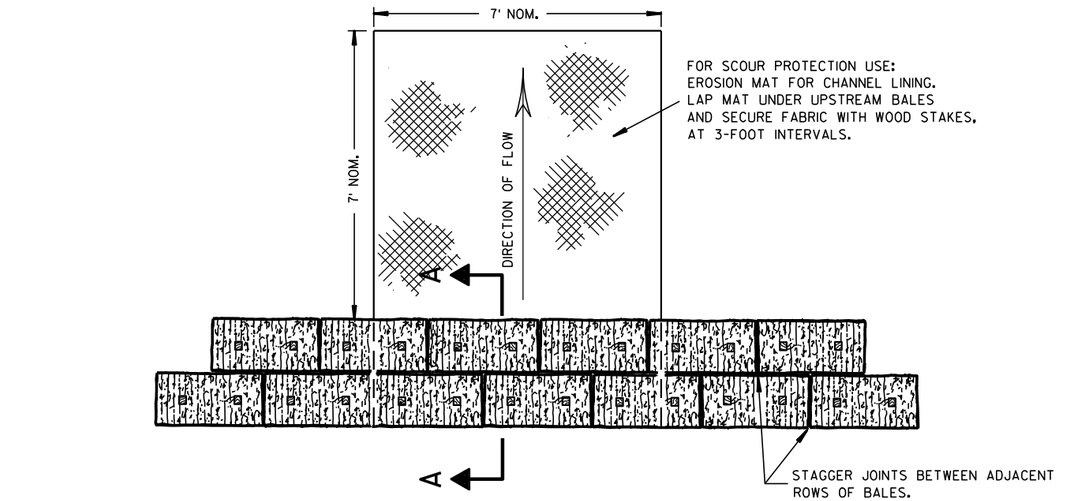
S.D.D. 8 E 4-2

6

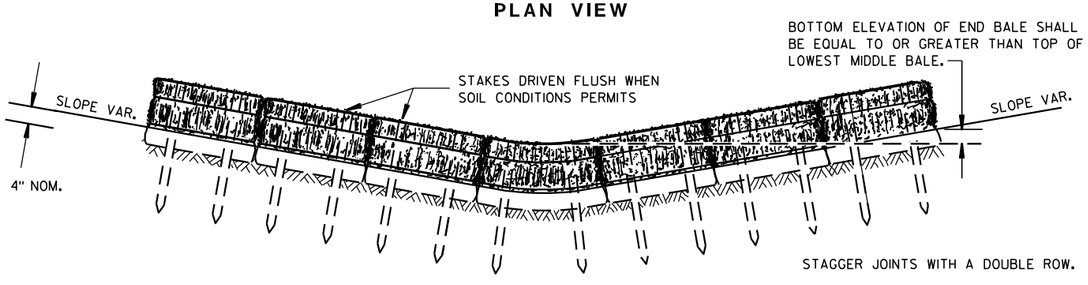
S.D.D. 8 E 4-2



SECTION A-A



PLAN VIEW



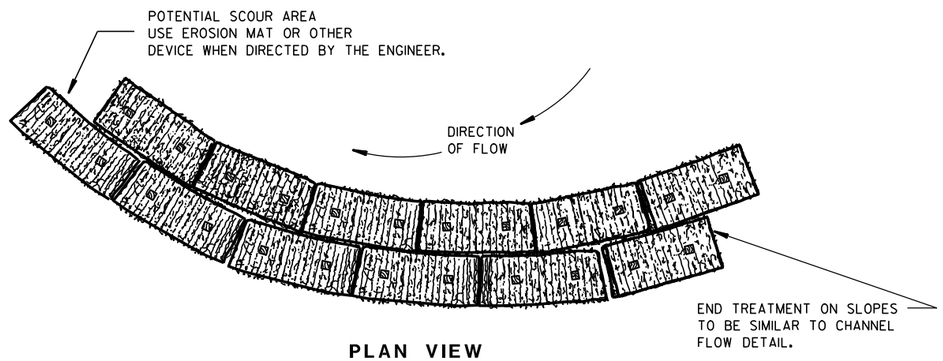
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

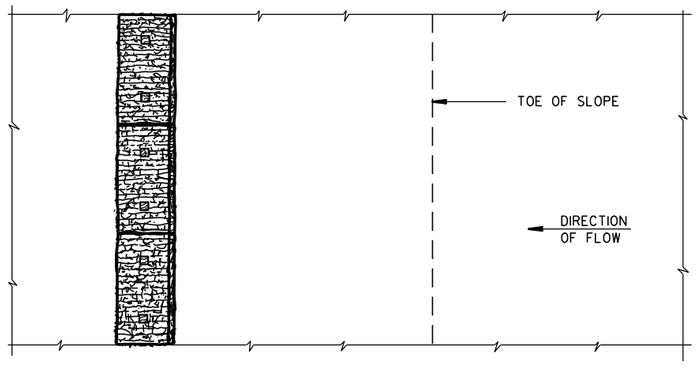
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

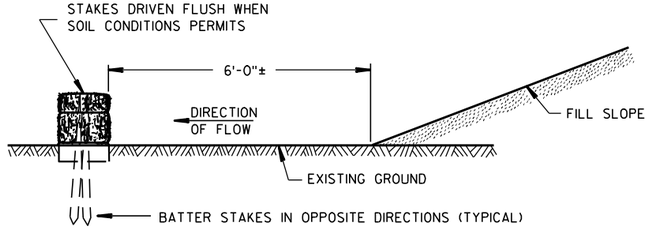


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 DATE — /S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER

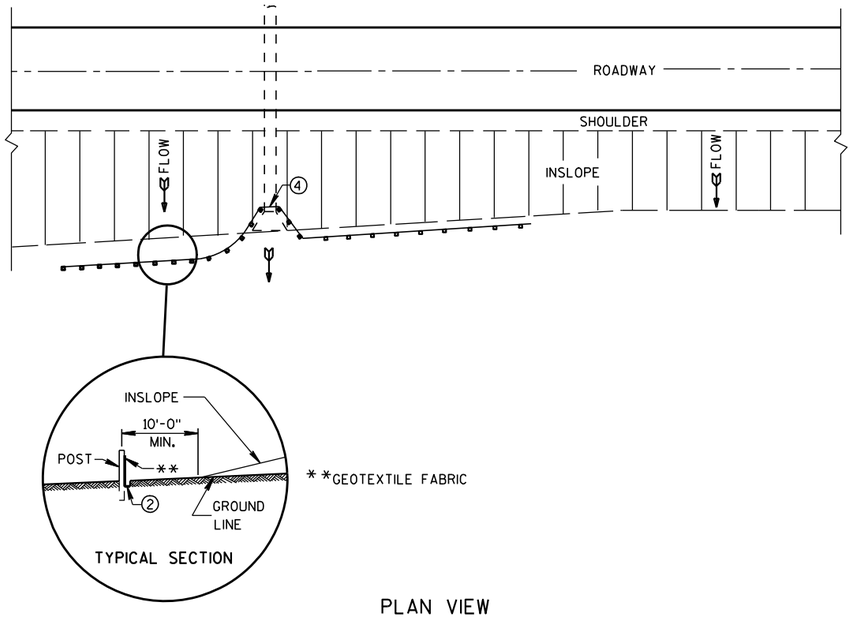
FHWA

6

S.D.D. 8 E 8-3

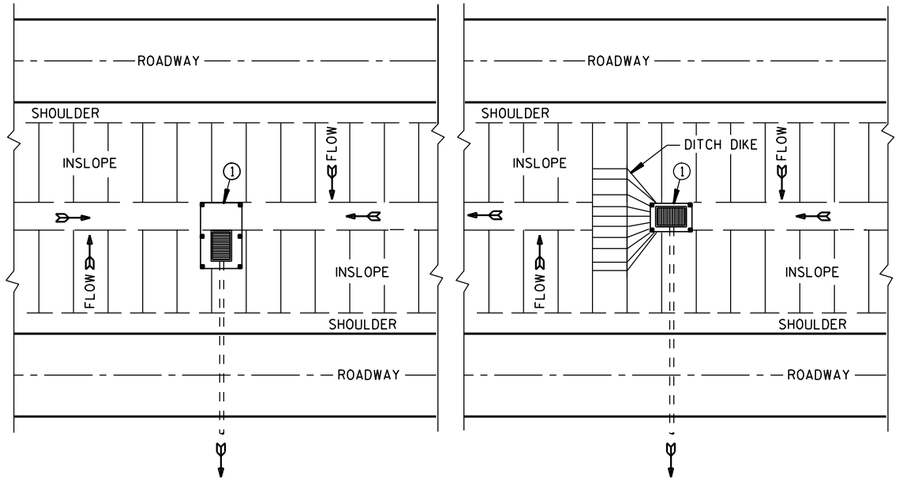
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



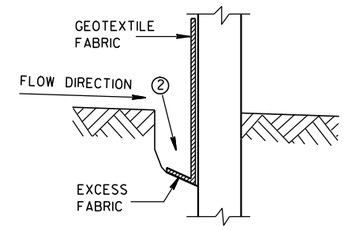
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

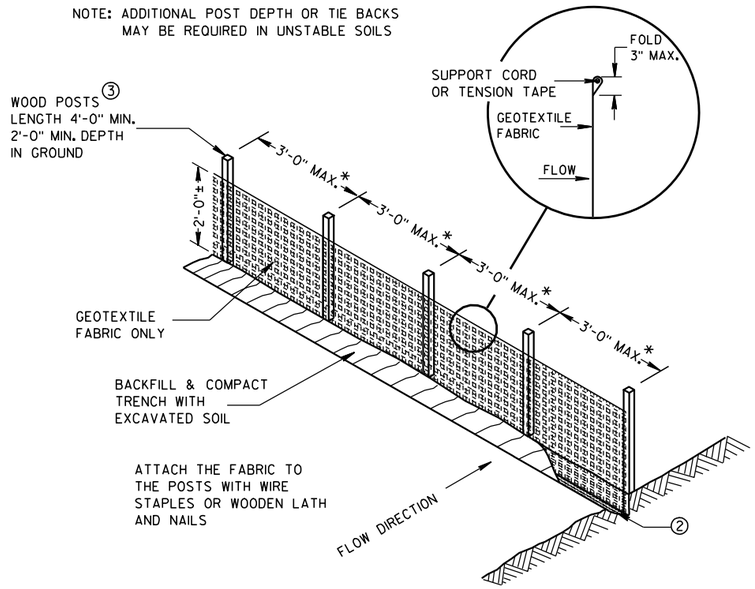
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.

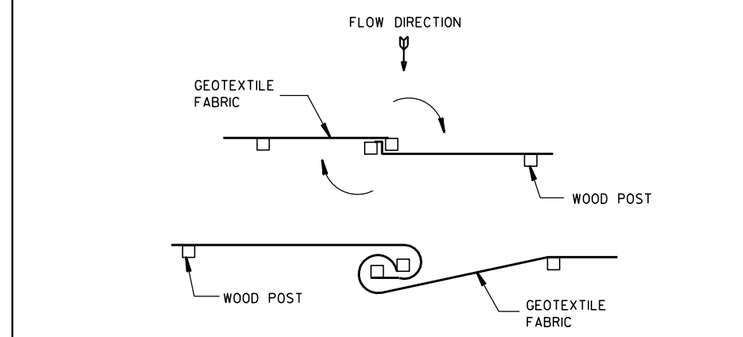


TRENCH DETAIL

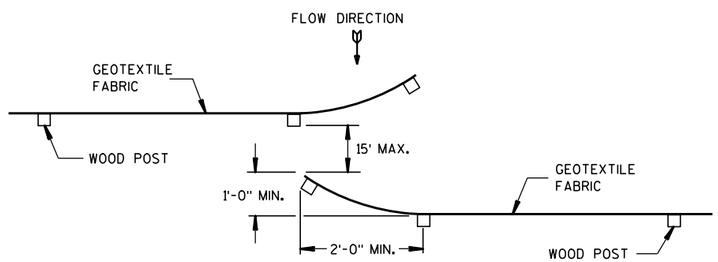


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

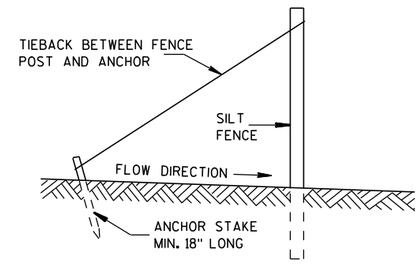


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

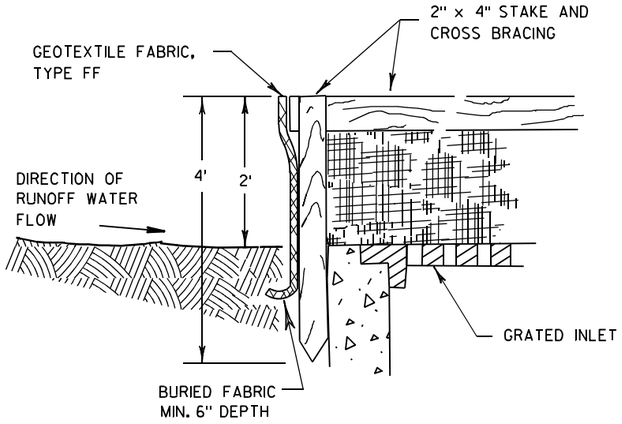
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

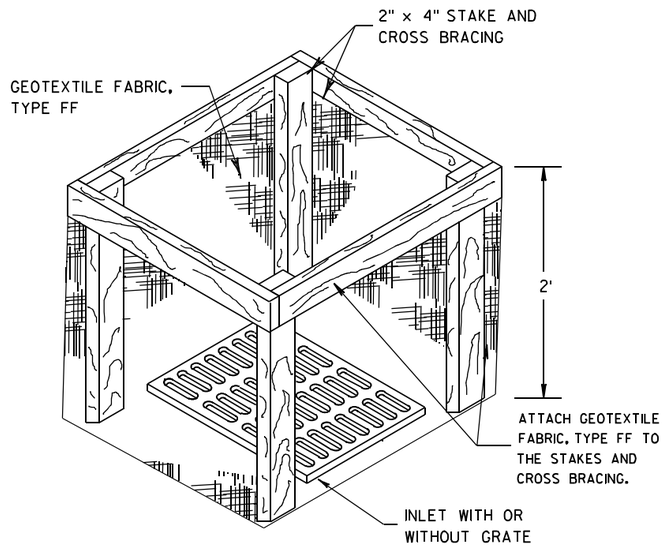
6

S.D.D. 8 E 9-6

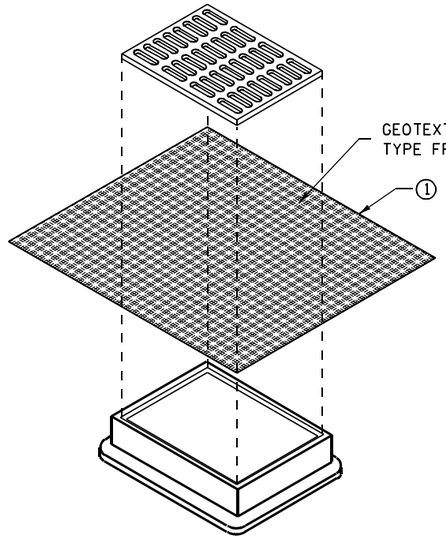
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S.D.D. 8 E 9-6



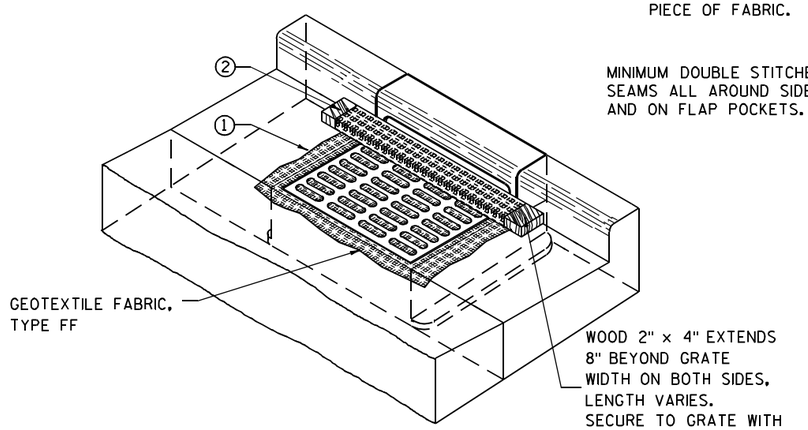


INLET PROTECTION, TYPE A

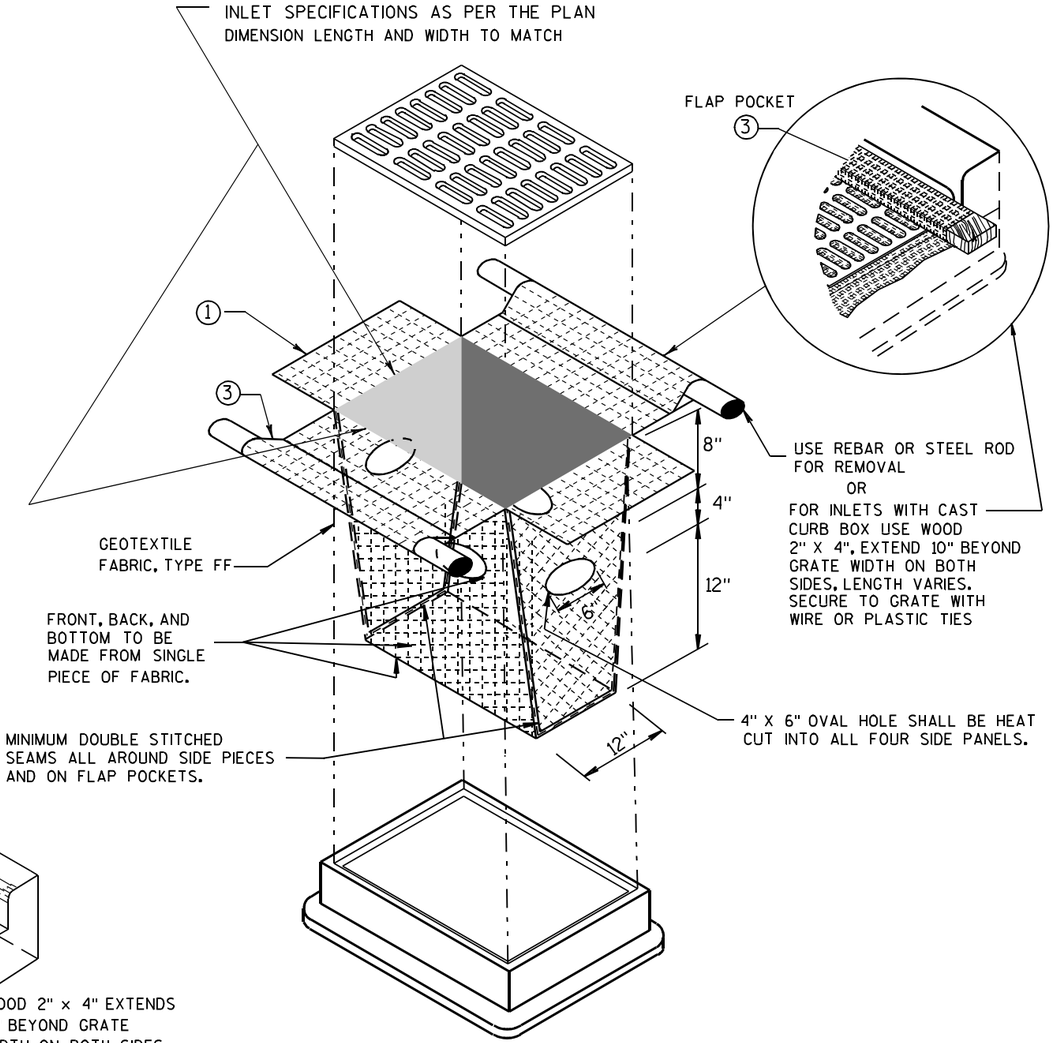


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 8 E 10-2
S.D.D. 8 E 10-2

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

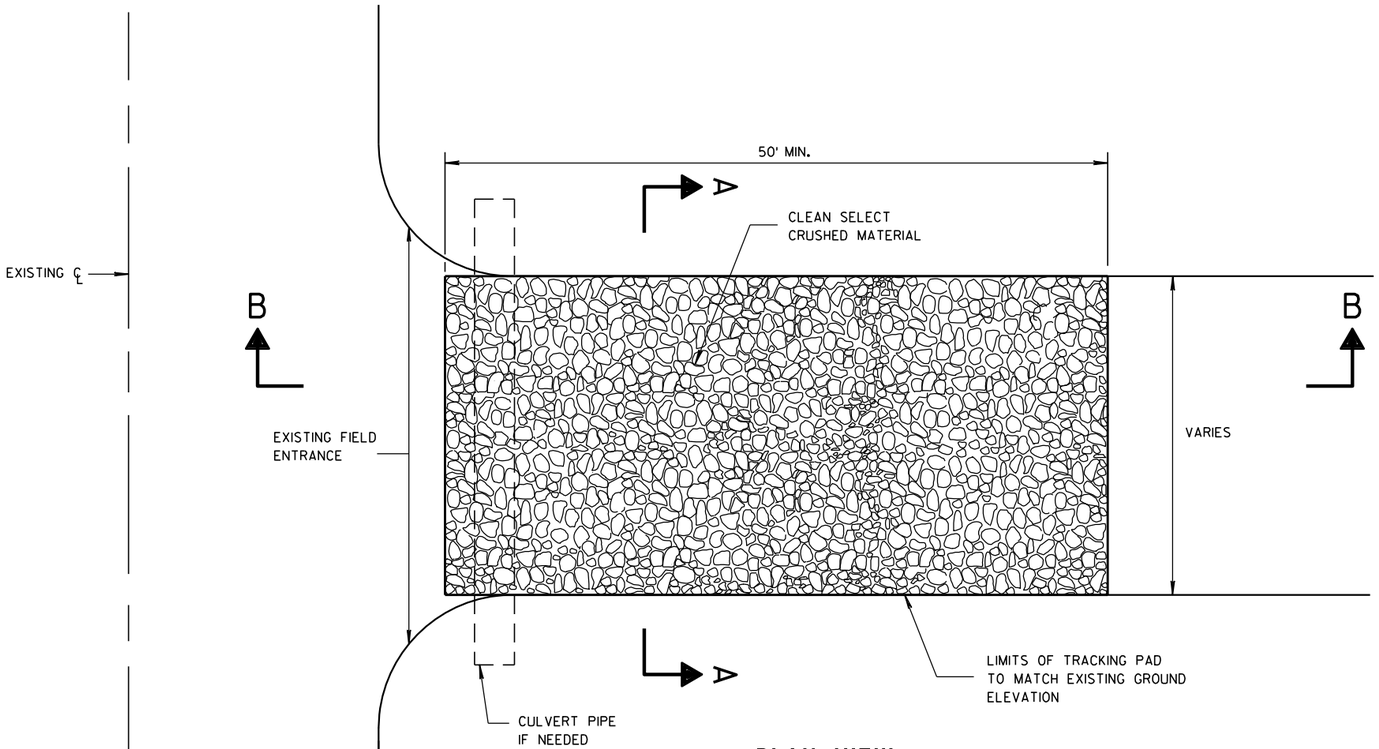
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

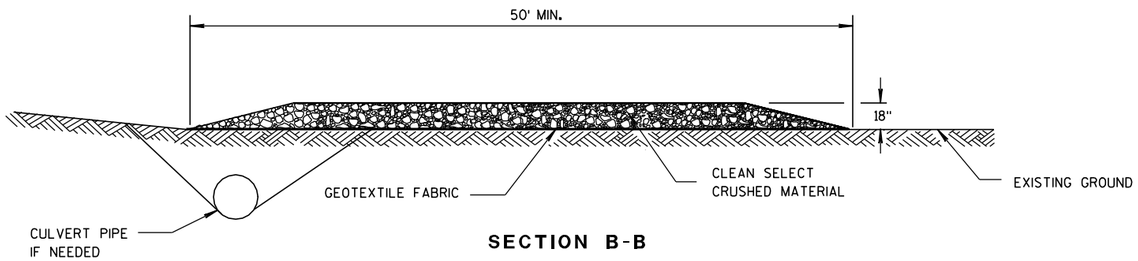
SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

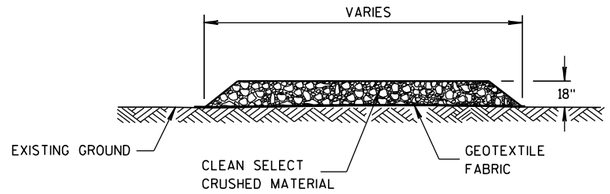
THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



PLAN VIEW



SECTION B-B



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

S.D.D. 8 E 14-1
6

METAL APRON ENDWALLS

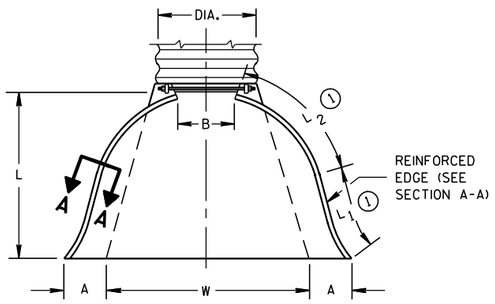
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

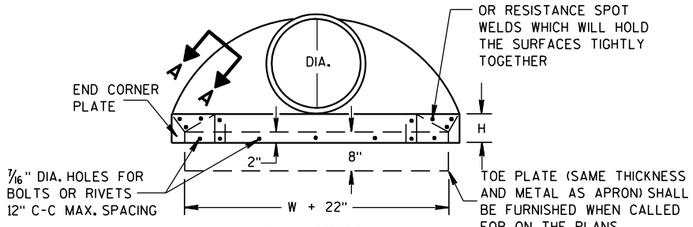
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

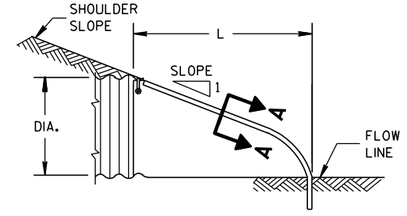
*MINIMUM
**MAXIMUM



PLAN VIEW

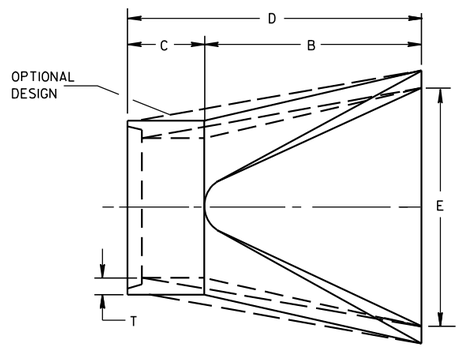


END VIEW

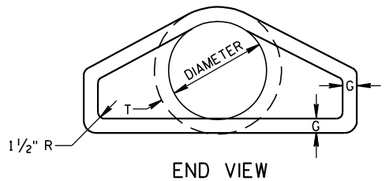


SIDE ELEVATION

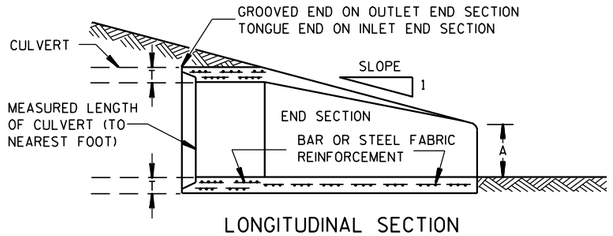
METAL ENDWALLS



PLAN

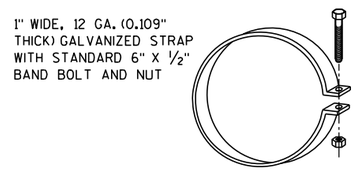


END VIEW



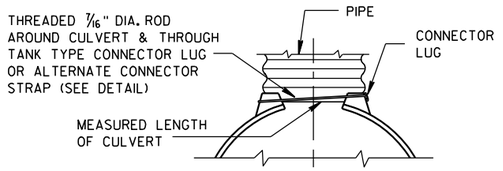
LONGITUDINAL SECTION

CONCRETE ENDWALLS

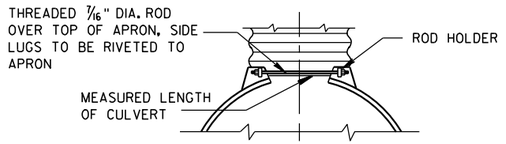


ALTERNATE FOR TYPE 1 CONNECTION

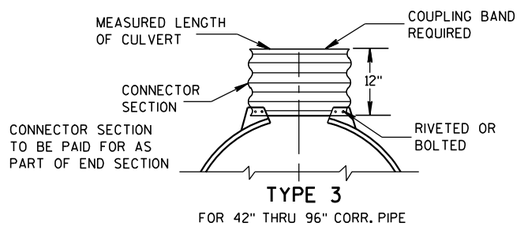
END SECTION CONNECTOR STRAP



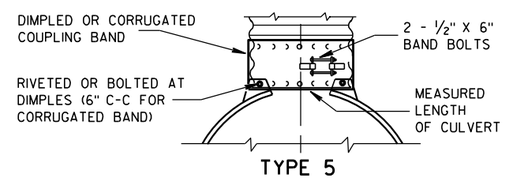
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

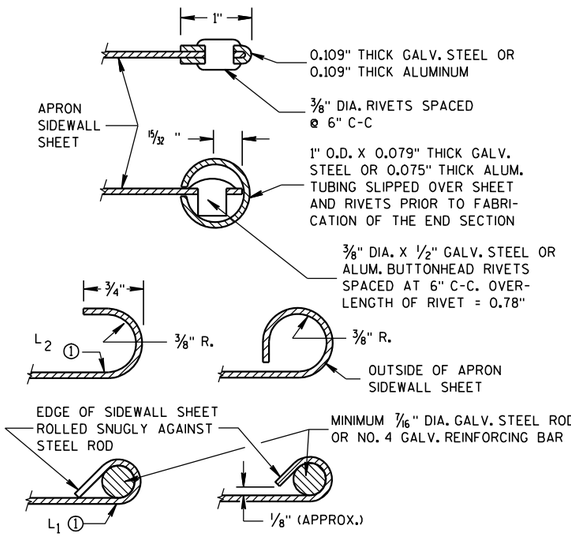
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

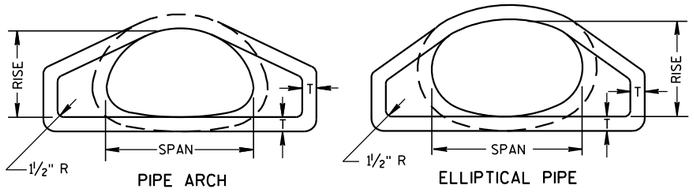
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

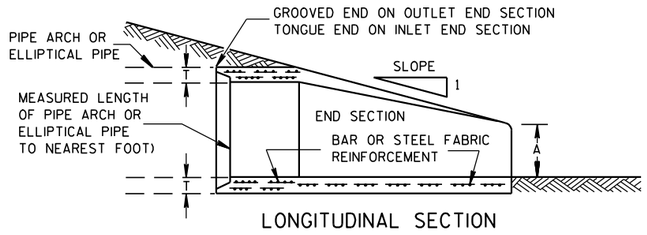
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

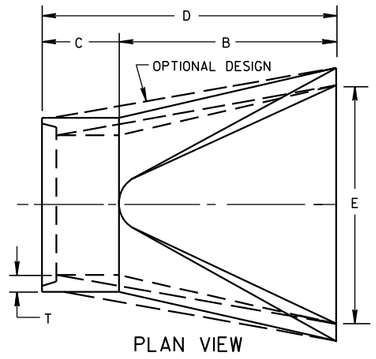
6
S.D.D. 8 F 1-11



END VIEW

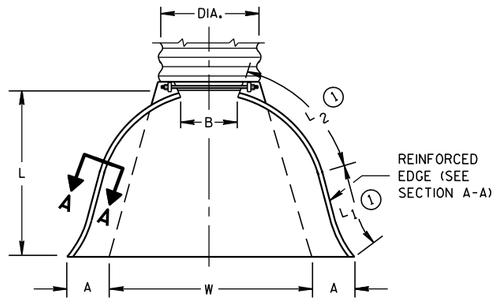


LONGITUDINAL SECTION

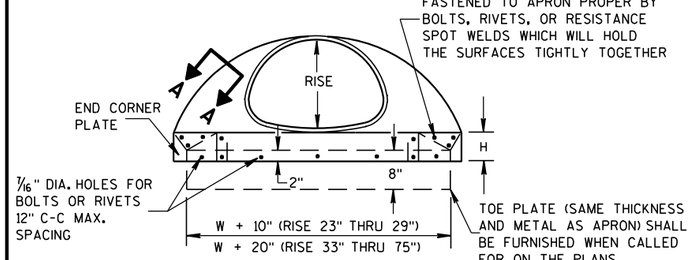


PLAN VIEW

CONCRETE ENDWALLS

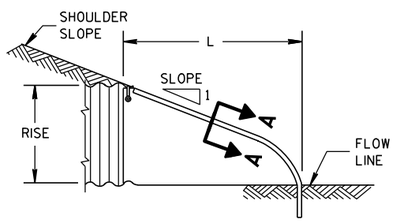


PLAN VIEW



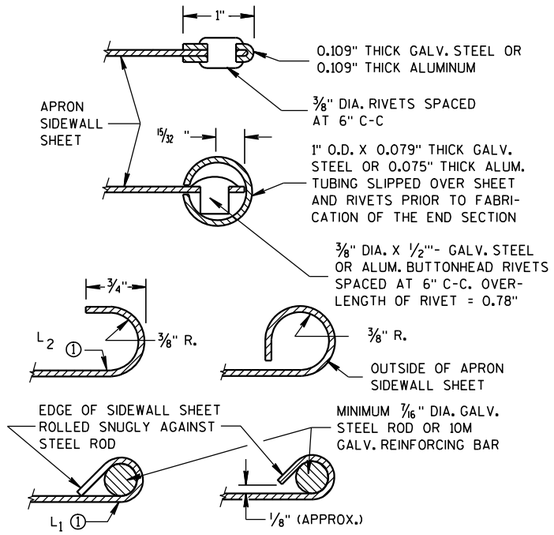
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

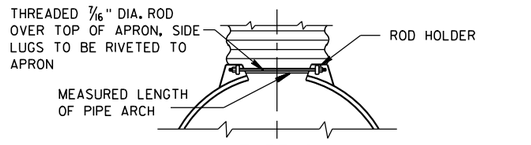
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

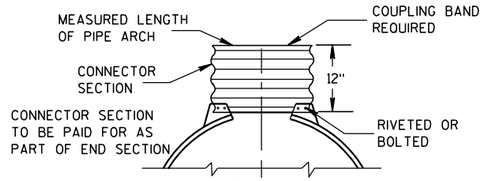
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



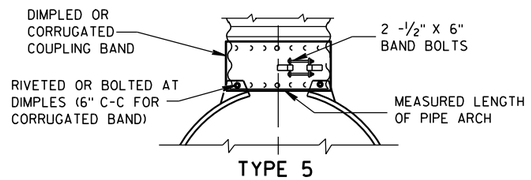
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

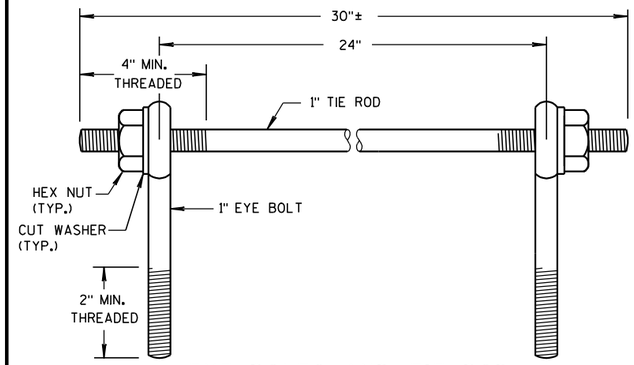
11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

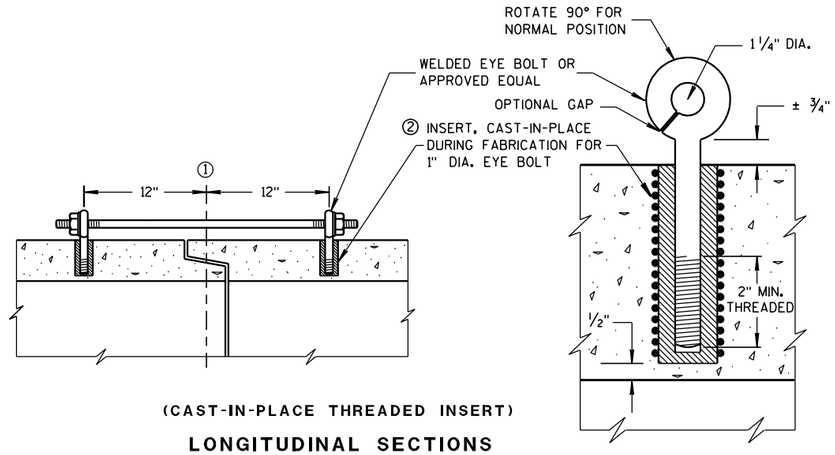
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EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

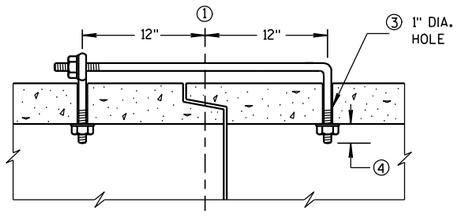
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

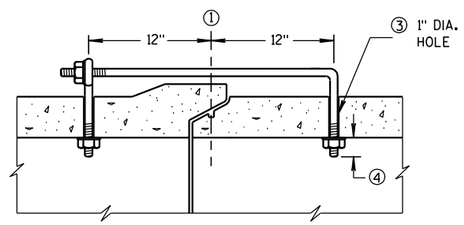
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

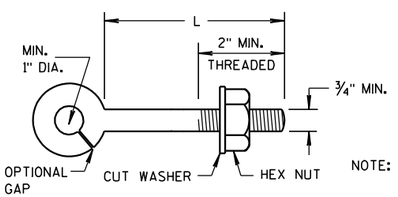


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

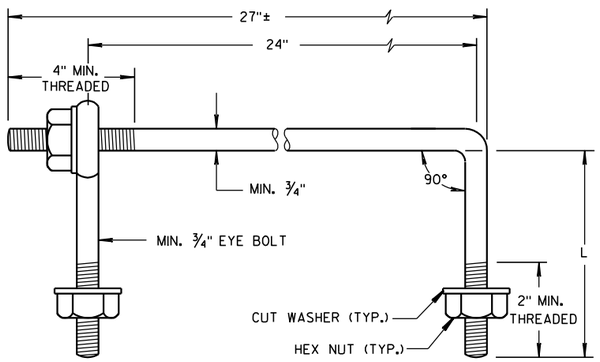
EYE BOLT DIMENSION TABLE

PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

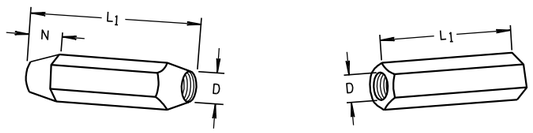
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

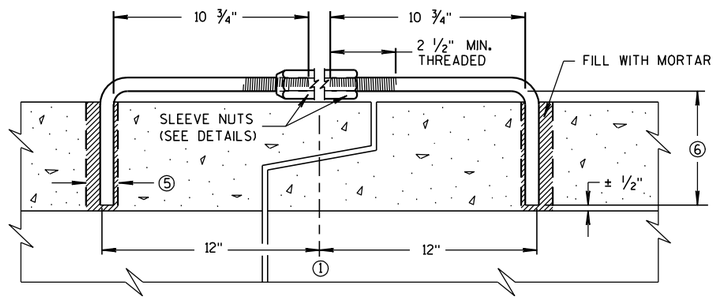
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

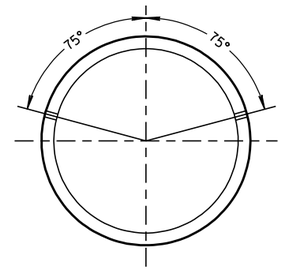
SLEEVE NUTS



LONGITUDINAL SECTION

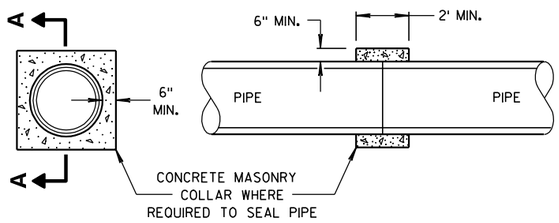
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

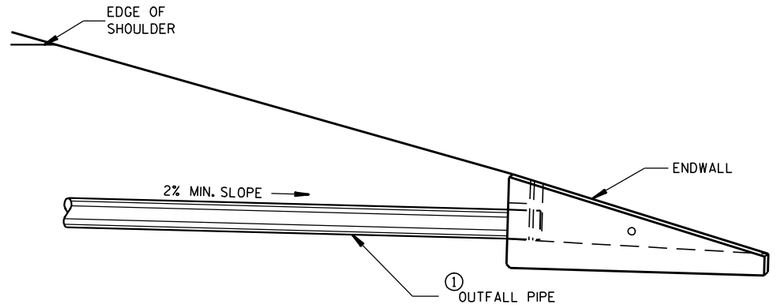
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
373
FHWA

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DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

**APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

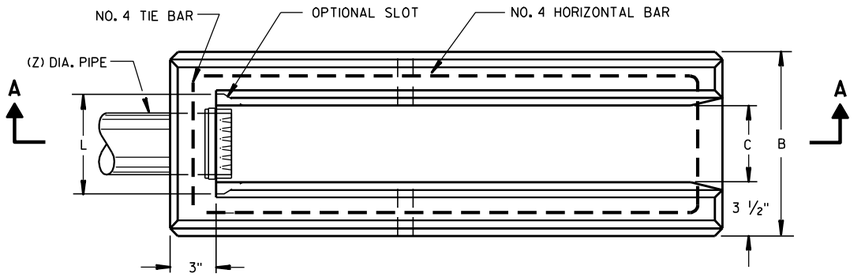
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

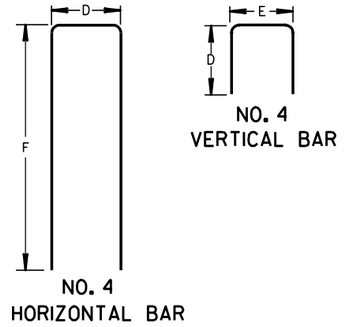
① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

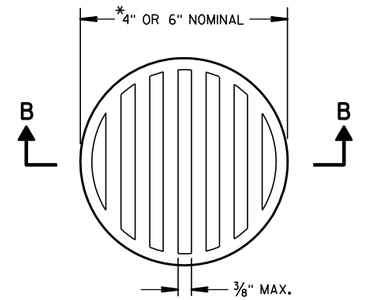
② THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



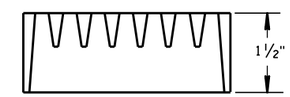
PLAN VIEW



BAR STEEL REINFORCEMENT DETAILS



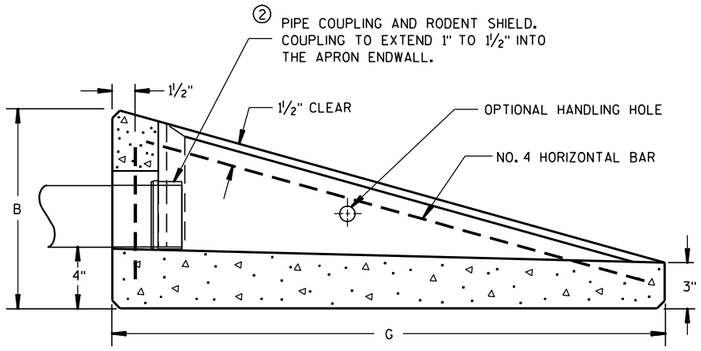
NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.



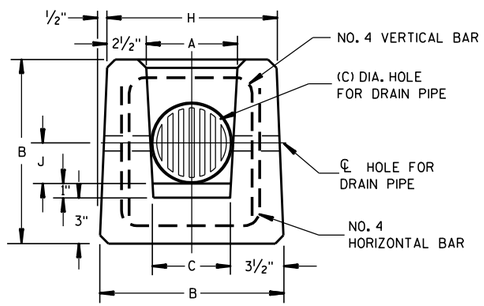
SECTION B-B

② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION A-A



END VIEW

CONCRETE APRON ENDWALL FOR UNDERDRAIN

REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

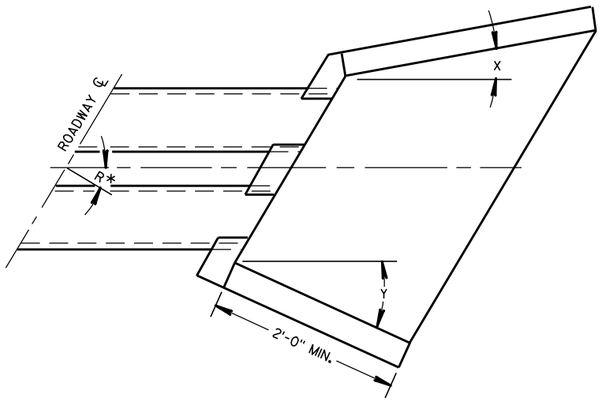
APPROVED
3/10/98 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 F 6-4

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S.D.D. 8 F 6-4



WINGWALL ANGLE DETAILS

INLET			OUTLET		
R*	X	Y	R*	X	Y
0 - 7°	30°	30°	0 - 15°	15°	15°
8 - 22°	25°	"	16 - 45°	10°	"
23 - 37°	20°	"	46 - 75°	5°	"
38 - 52°	15°	"	OVER 75°	0°	"
53 - 67°	10°	"			
68 - 82°	5°	"			
OVER 82°	0°	"			

*R = NUMBER OF DEGREES RIGHT OR LEFT HAND FORWARD

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

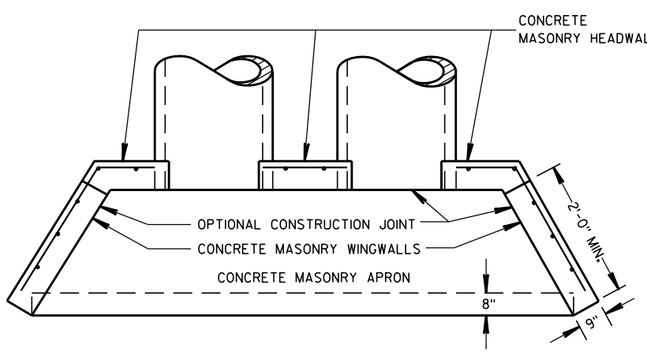
FILL SLOPES FLATTER THAN 2 ½:1 SHALL BE WARPED TO MEET THE TOP OF THE WINGWALLS.

ALL STEEL REINFORCEMENT AND WELDED STEEL WIRE FABRIC SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE NOTED.

(1) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS SPACED 12" C-C IN BOTH DIRECTIONS.

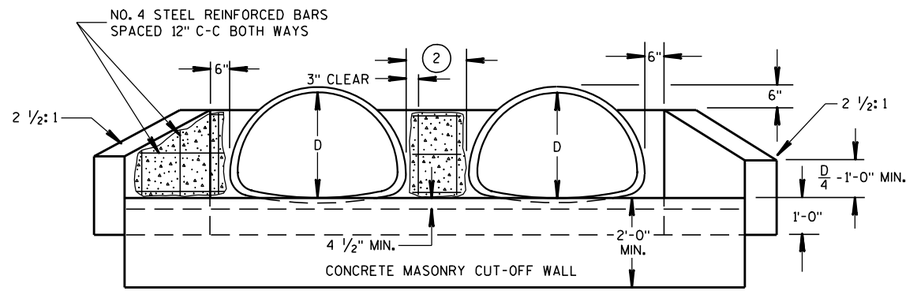
(2) THE SPACE BETWEEN PIPES SHALL BE AS FOLLOWS:

DIAMETER OR SPAN	SPACE
UP TO AND INCLUDING 48"	2'-0"
OVER 48" TO 72"	½ DIA. OR SPAN
OVER 72"	3'-0"



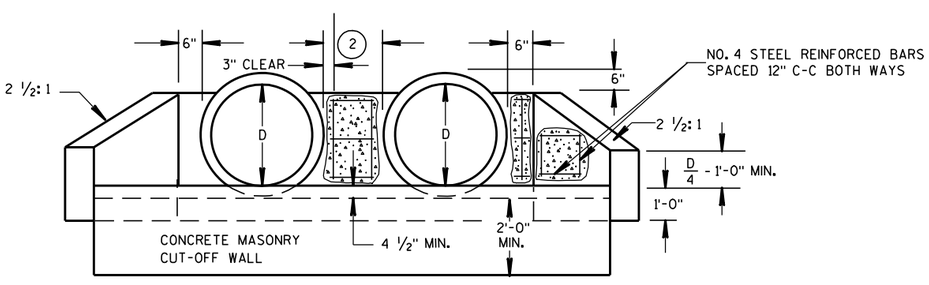
PLAN VIEW

CULVERT PIPE AND PIPE ARCH



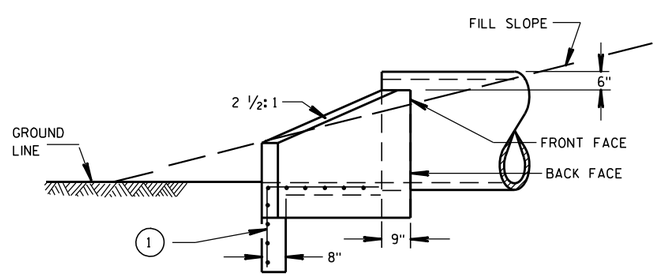
END ELEVATION

PIPE ARCH



END ELEVATION

CULVERT PIPE



SIDE ELEVATION

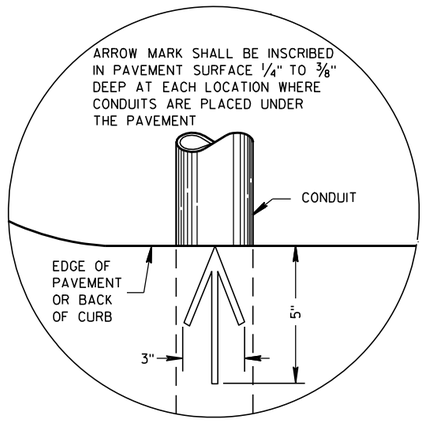
CULVERT PIPE AND PIPE ARCH

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

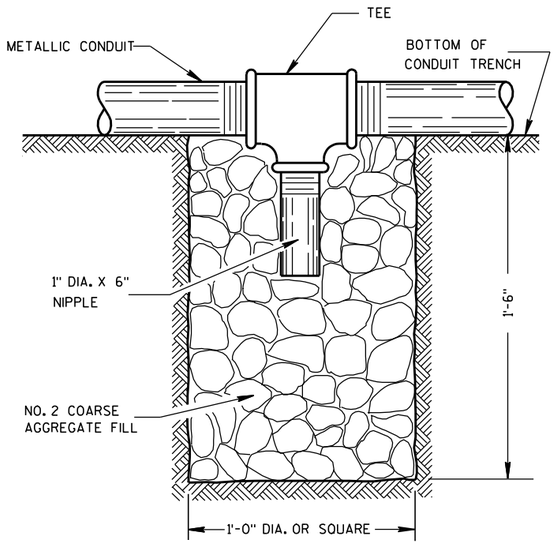
APPROVED
9/14/98 DATE
/S/ Rory L. Rhinehart
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 F 10-1



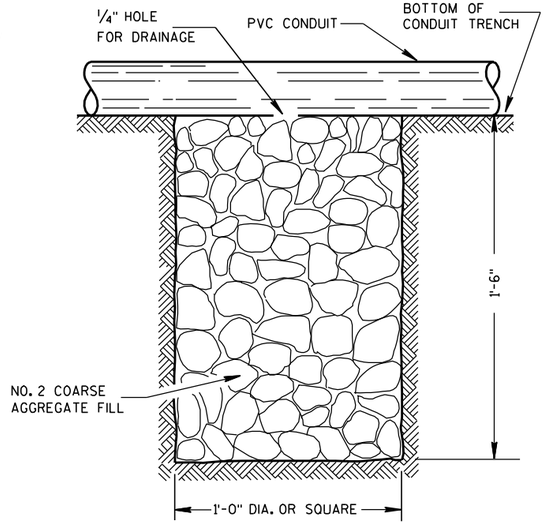
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

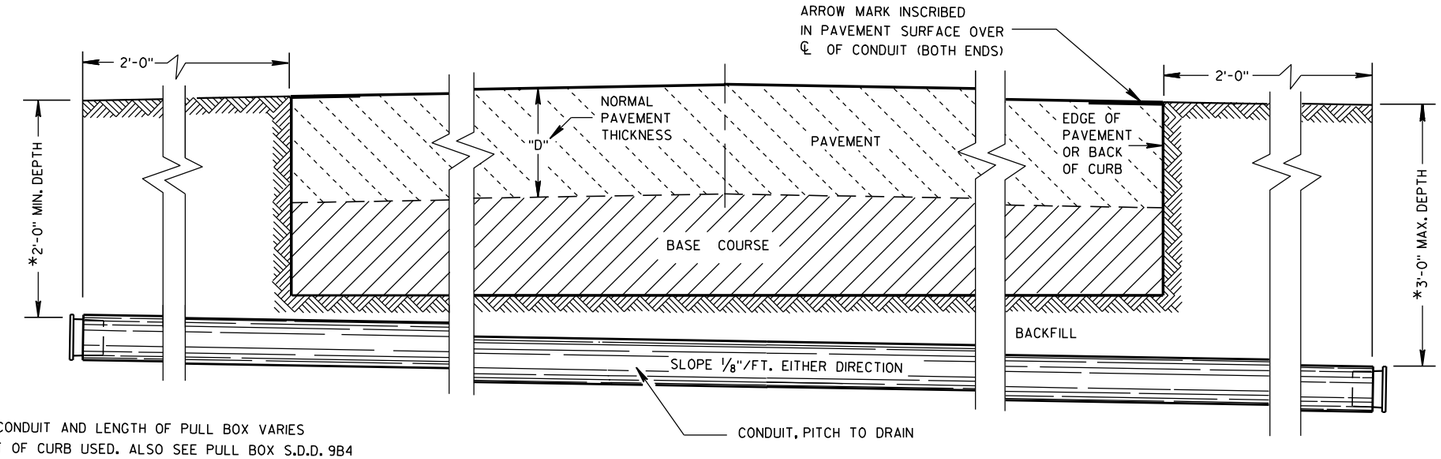
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 — DATE

/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI

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HWYS

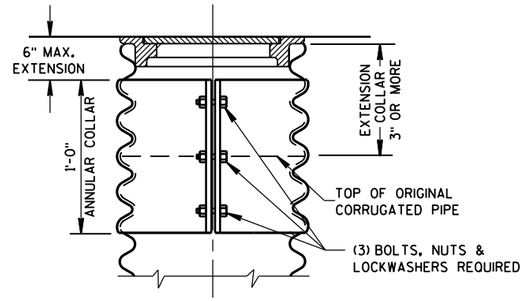
FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

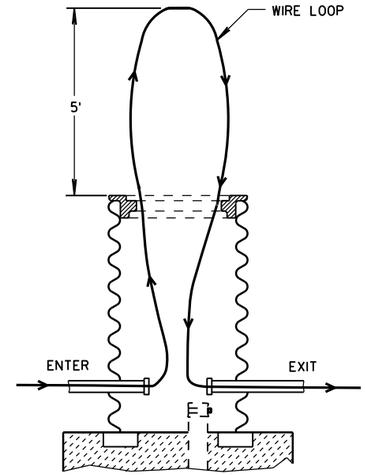
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

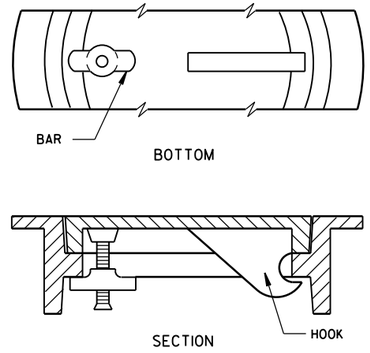
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

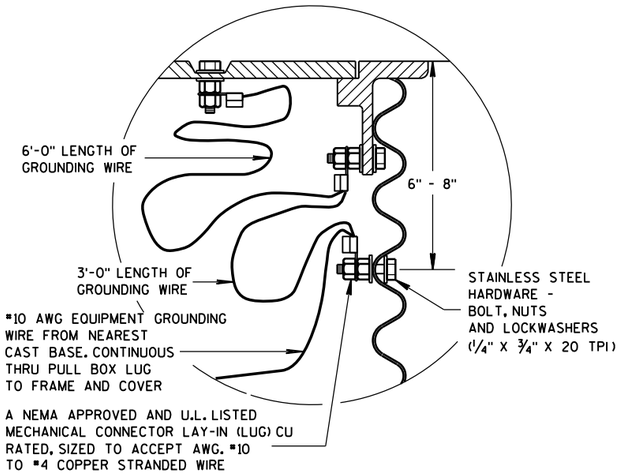


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

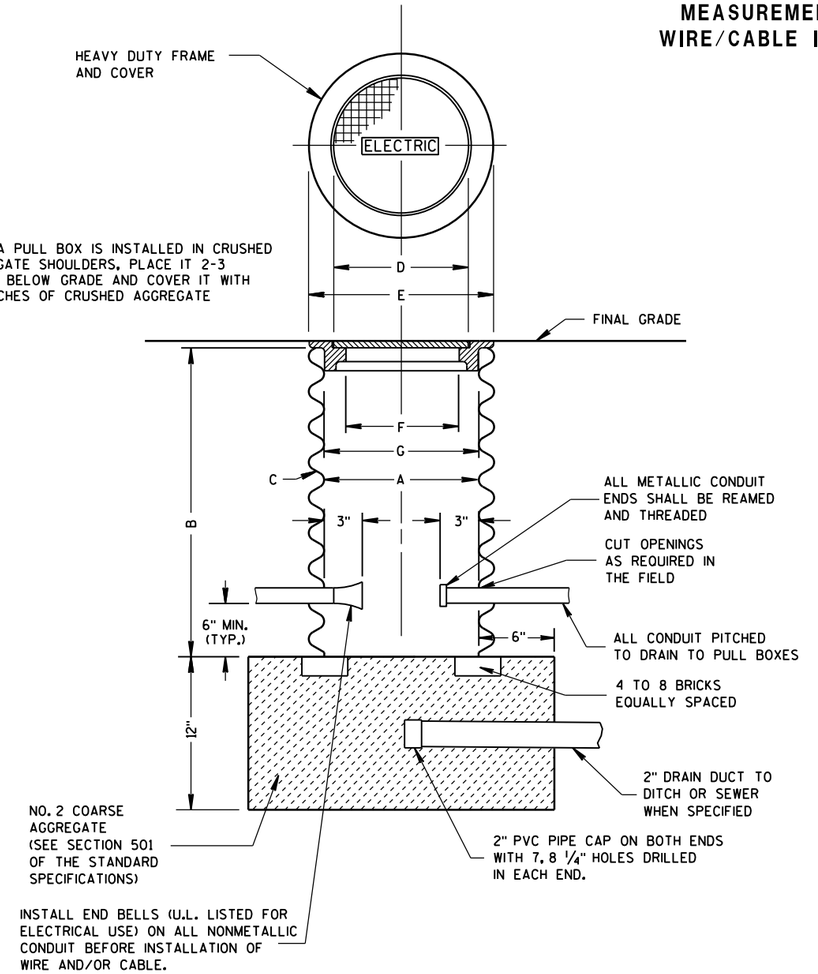


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

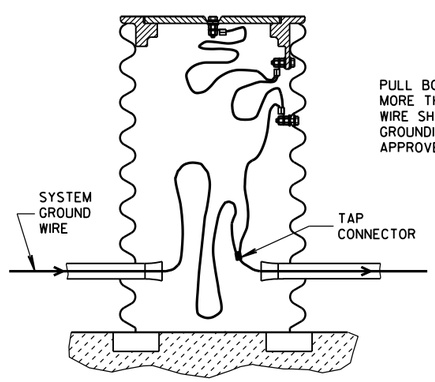
GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

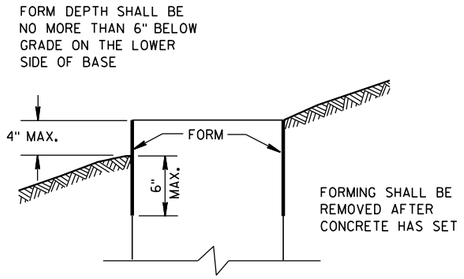
APPROVED
2-7-2013 DATE
/S/ Ahmet Demirbilek STATE ELECTRICAL 377
FHWA

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S.D.D. 9 B 4-10

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S.D.D. 9 B 4-10



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

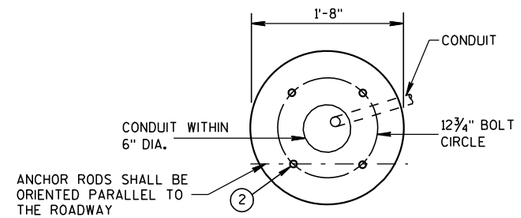
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

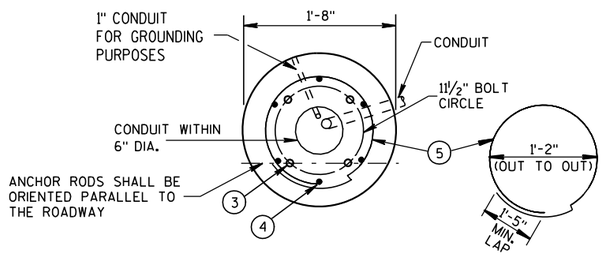
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

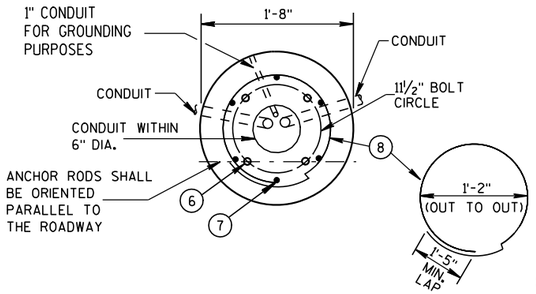
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



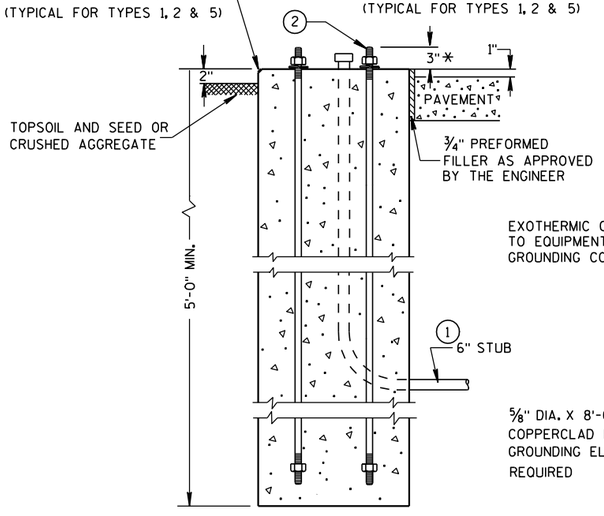




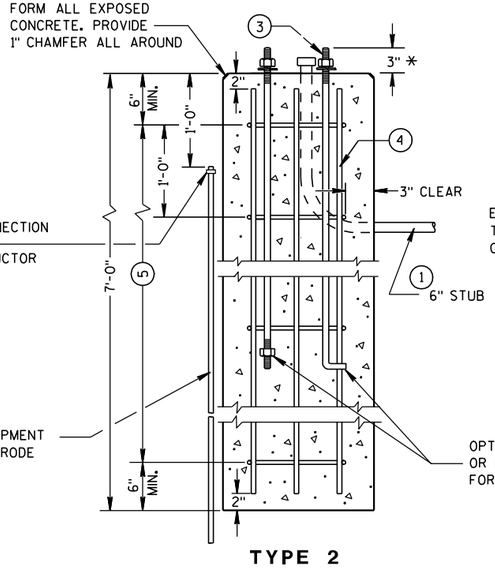
FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2 & 5)

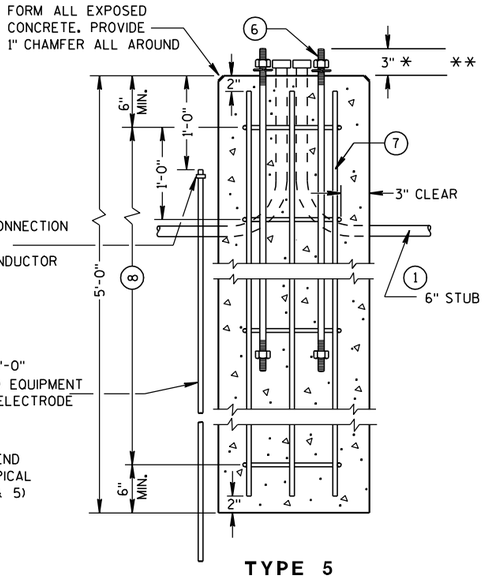
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)



TYPE 1



TYPE 2



TYPE 5

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI
378 — HWYS
FHWA

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S.D.D. 9 C 2-6

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S.D.D. 9 C 2-6

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

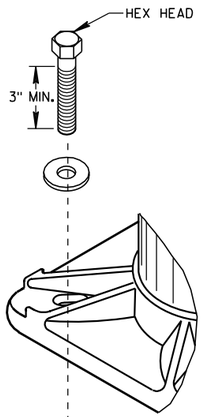
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

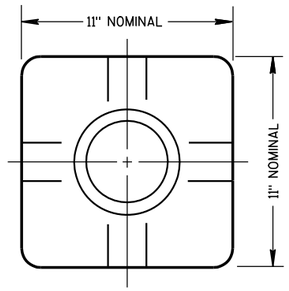
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

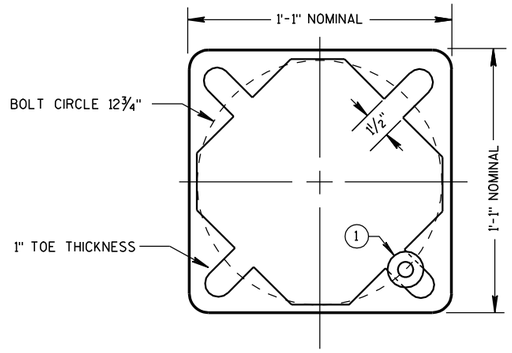
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

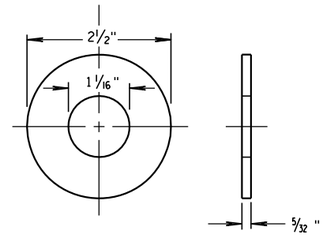




TOP VIEW
(PEDESTAL BASE)

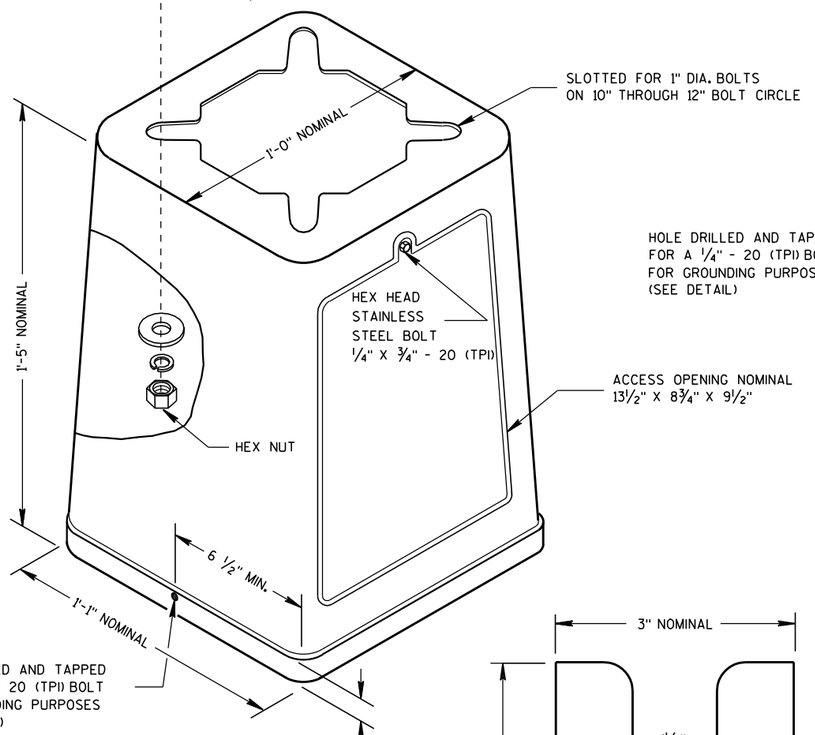


BOTTOM VIEW
(PEDESTAL BASE)

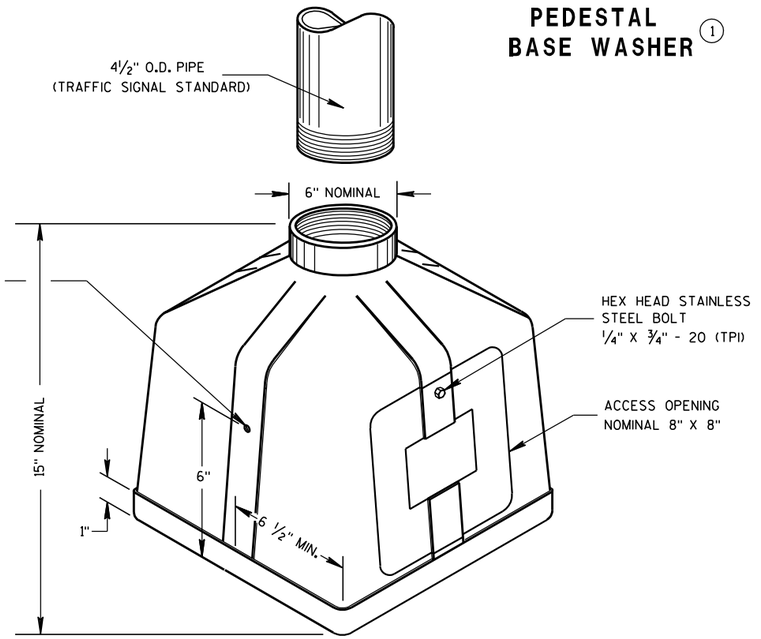


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

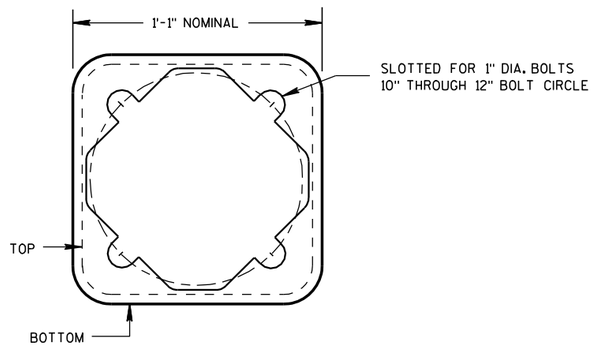


ISOMETRIC VIEW

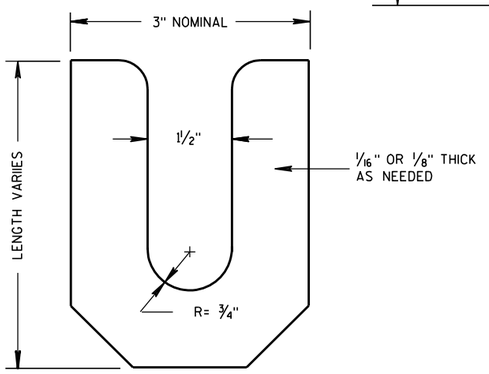


ISOMETRIC VIEW

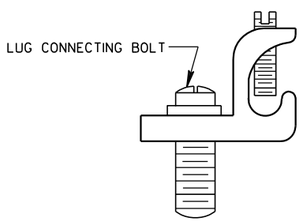
PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)



LEVELING SHIM



TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

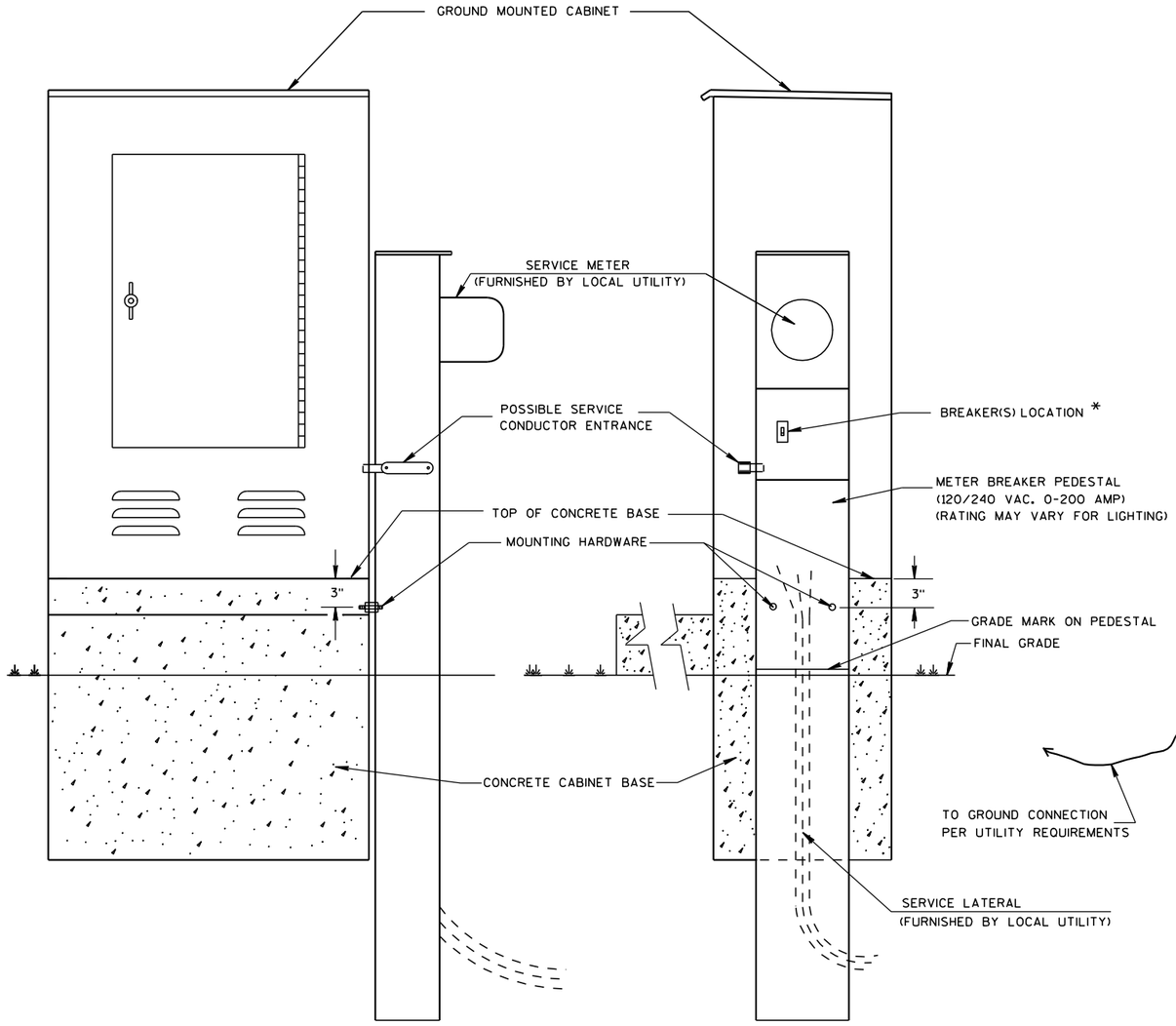
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10/27/09 — DATE
/S/ Joanna L. Rich — STATE ELECTRICAL ENGI
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TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

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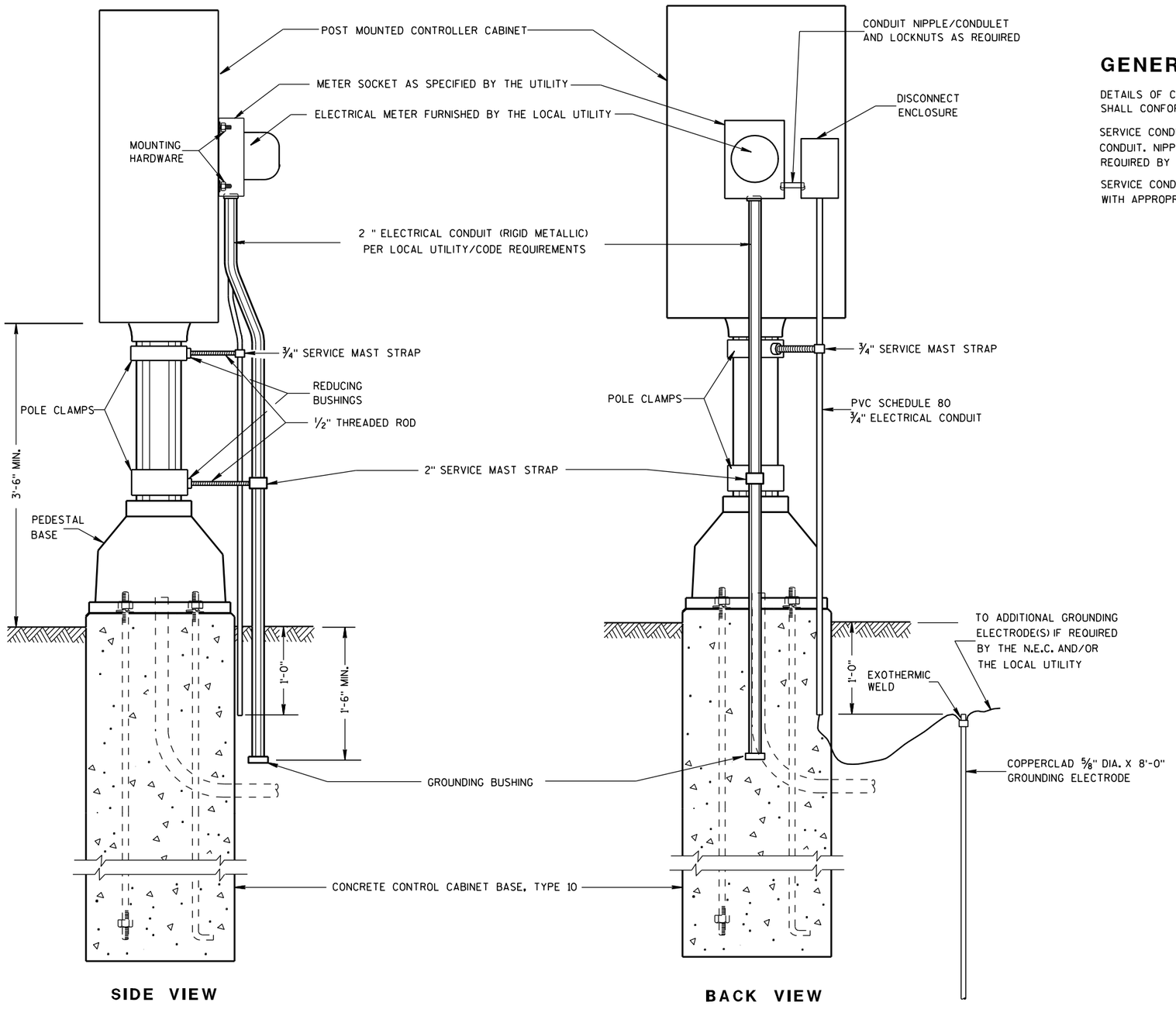
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CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/27/09 DATE
/S/ Joanna L. Bush
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POST MOUNTED CONTROLLER SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID STEEL OR SCHEDULE 80 PVC ELECTRICAL CONDUIT. NIPPLES AND/OR CONDULETS, WITH LOCK NUTS AND GROUNDING BUSHINGS AS REQUIRED BY THE N.E.C. OR THE LOCAL UTILITY.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AS REQUIRED AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED ELECTRICAL CODE.

POST MOUNTED CONTROLLER SERVICE INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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3/24/2003 — DATE

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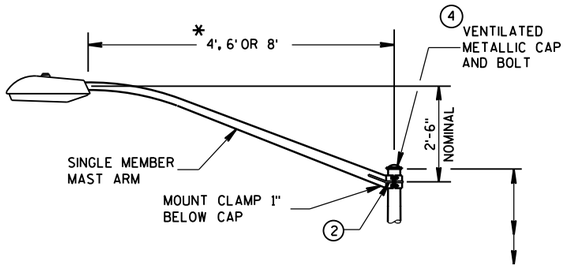
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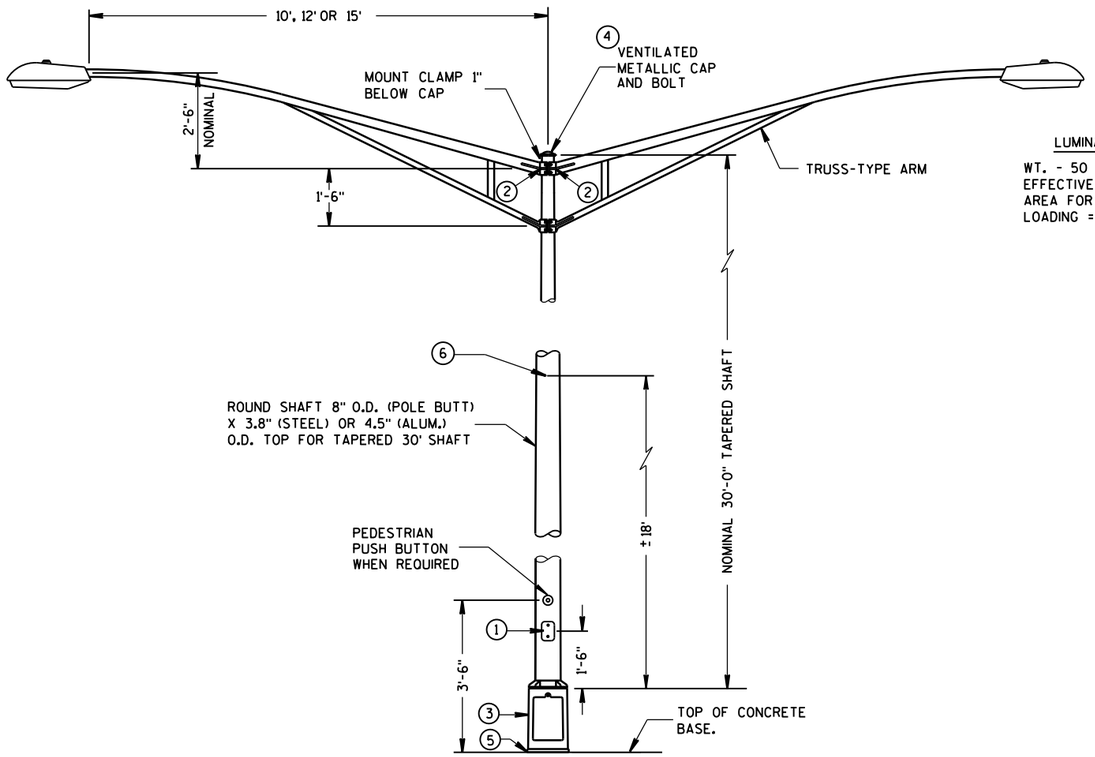
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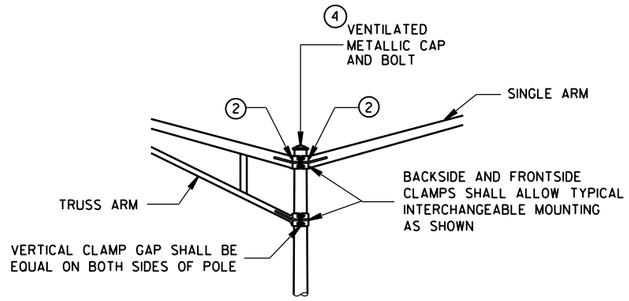
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*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

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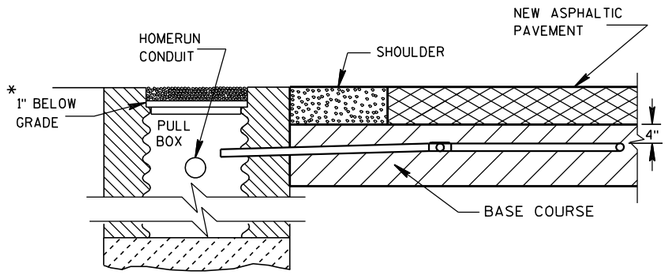
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POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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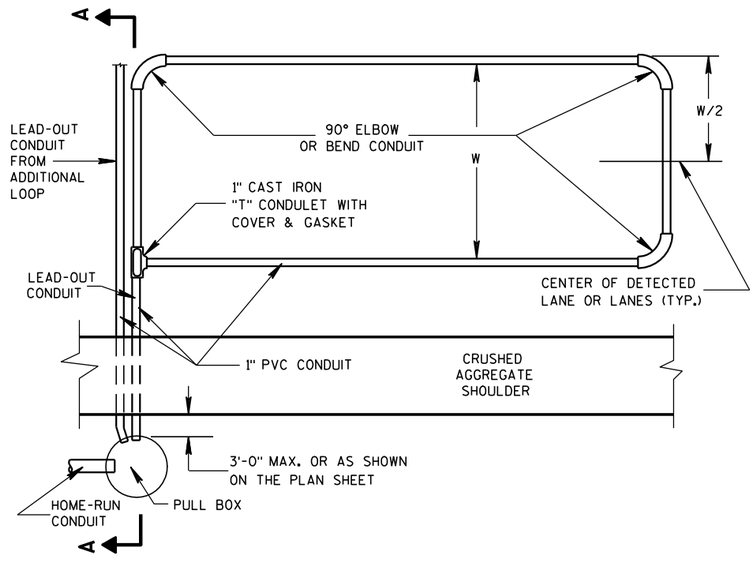
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SECTION A-A
NO CURB & GUTTER

DETECTOR LOOP INSTALLATION DETAIL

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.



TYPICAL PLAN OF LOOP DETECTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD-OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES BEFORE INSTALLATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

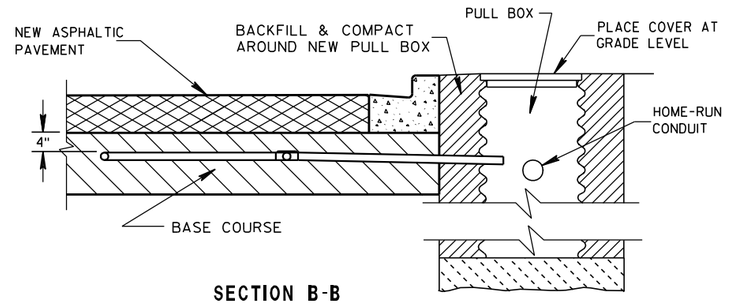
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT AND CONDULET SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE ASPHALTIC PAVEMENT IS PLACED.

WHEN MULTIPLE LAYERS OF ASPHALTIC PAVEMENT ARE TO BE PLACED, LOOPS MAY BE INSTALLED BY SAWING A TWO INCH WIDE SLOT IN THE FIRST LAYER, DIG OUT THE ASPHALTIC MATERIAL AND BASE COURSE. PLACE THE LOOP, FILL THE SLOT WITH BASE COURSE MATERIAL AND NEW ASPHALTIC MATERIAL AND TAMP THE ASPHALTIC MATERIAL IN PLACE.

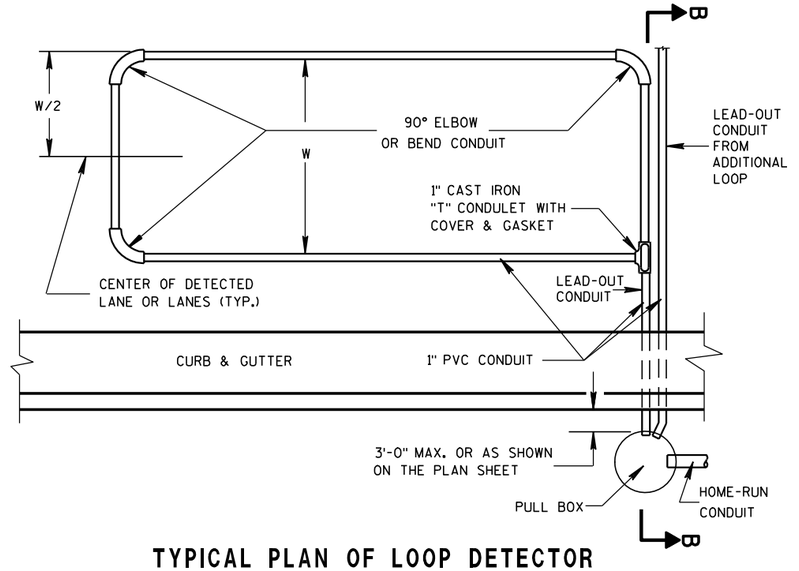
SHOULD TRAFFIC BE ALLOWED TO USE THE AREA OF ROADWAY WITH THE NEWLY INSTALLED LOOP BEFORE THE PLACEMENT OF THE NEXT LAYER OF ASPHALTIC PAVEMENT, THE SLOT/PAVEMENT OPENING SHALL BE SEALED WITH HOT POURED ELASTIC TYPE MATERIAL CONFORMING TO THE REQUIREMENTS OF THE "SPECIFICATION FOR JOINT SEALANTS, HOT POURED, FOR CONCRETE AND ASPHALT PAVEMENTS, ASTM DESIGNATION: D3405".

DRIVE A 1½" MAX. PK NAIL INTO THE NEW ASPHALTIC PAVEMENT AND DIRECTLY ABOVE THE CONDULET AFTER THE FINAL LAYER OF NEW ASPHALTIC PAVEMENT IS COMPLETELY INSTALLED, IF REQUIRED BY THE DISTRICT TRAFFIC SECTION.



SECTION B-B
CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAIL



TYPICAL PLAN OF LOOP DETECTOR

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW ASPHALTIC PAVEMENT)

STATE OF WISCONSIN
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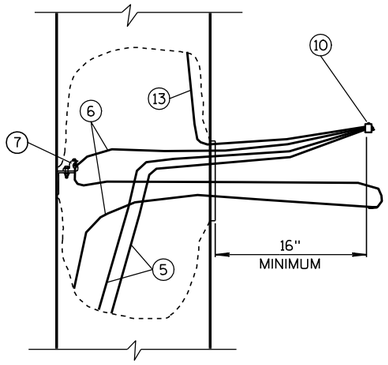
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/S/ Balu Ananthar[illegible]an — STATE ELECTRICAL ENGI

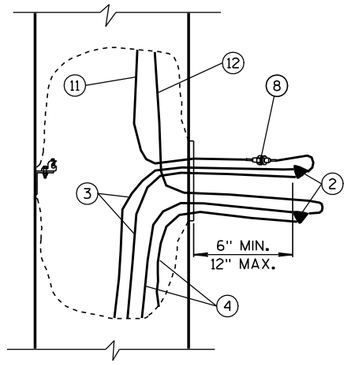
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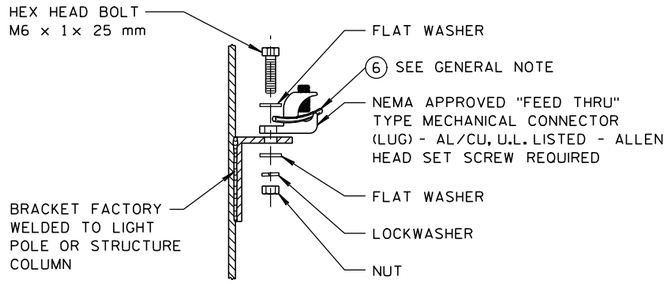


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



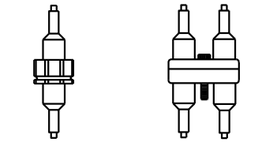
HANDHOLE GROUNDING LUG

(NUT, BOLT, WASHERS, AND LOCK WASHERS SHALL BE STAINLESS STEEL)

CONDUCTOR COLOR CODES

KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* FOLLOW COLOR CODING SHOWN IN THE PLANS. WHERE THE PLANS DO NOT SHOW COLOR CODING, USE BLACK FOR SINGLE LUMINAIRE POLES; BLACK AND RED FOR TWIN LUMINAIRE POLES.



FUSE ASSEMBLIES

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

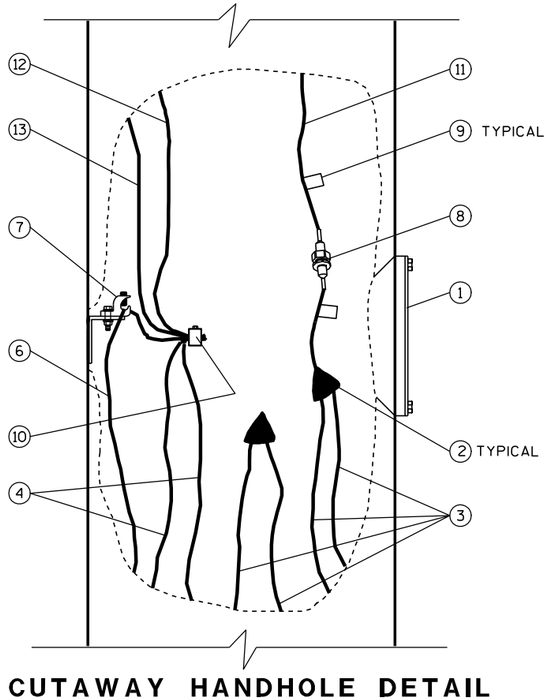
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

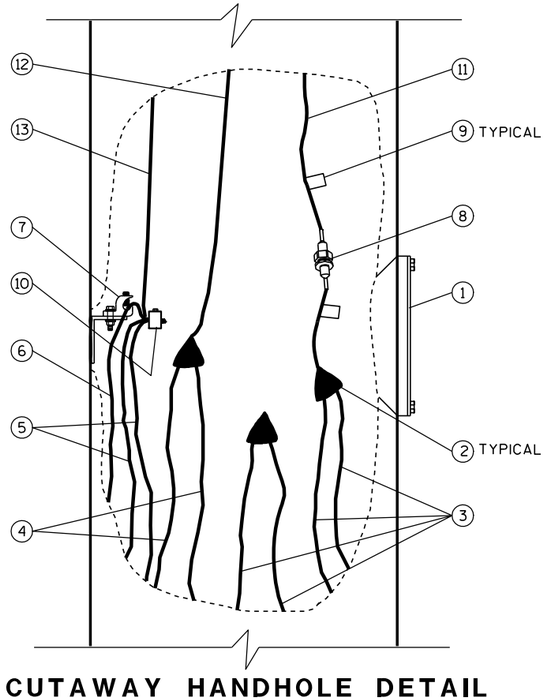
THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

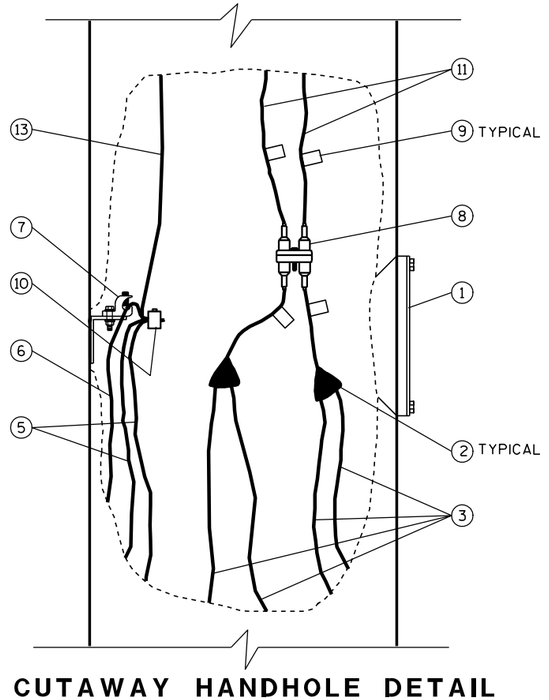
CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



CUTAWAY HANDHOLE DETAIL
GROUNDED NEUTRAL SYSTEMS
1-φ



CUTAWAY HANDHOLE DETAIL
ISOLATED NEUTRAL SYSTEMS
1-φ SHOWN; 3-φ WYE SIMILAR
(SEE GENERAL NOTE)



CUTAWAY HANDHOLE DETAIL
PHASE-TO-PHASE SYSTEMS
1-φ SHOWN; 3-φ DELTA SIMILAR
(SEE GENERAL NOTE)

NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE "TYPICAL CONDUCTOR SLACK AT HANDHOLES" ON THIS SHEET.

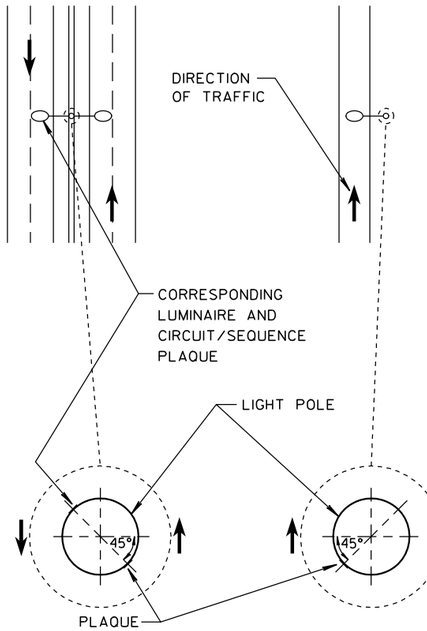
(1) HANDHOLE AND COVER
(2) INSULATED SPLICE
(3) UNGROUNDED LINE WIRE
(4) GROUNDED LINE WIRE
(5) SYSTEM GROUNDING LINE WIRE
(6) GROUNDING ELECTRODE CONDUCTOR
(7) HANDHOLE GROUNDING LUG
(8) FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
(9) CIRCUIT TAG (SEE GENERAL NOTE)
(10) REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
(11) UNGROUNDED POLE WIRE
(12) GROUNDED POLE WIRE
(13) EQUIPMENT GROUNDING POLE WIRE

ELECTRICAL HANDHOLE WIRING

STATE OF WISCONSIN
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MEDIAN POLE SINGLE ARM POLE

LOCATION OF LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, 1/2" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

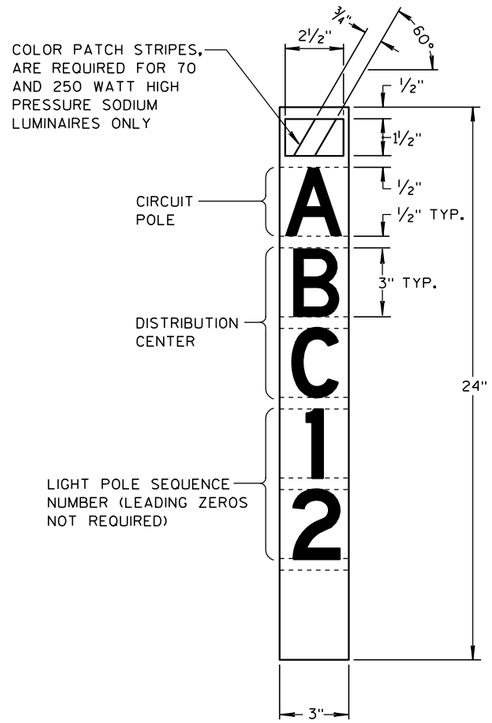
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

WITH THE APPROVAL OF THE ENGINEER, THE BASE MATERIAL MAY BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE SURFACE, IN CASES SUCH AS SMOOTH, CLEAN ALUMINUM POLES.

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.

COLOR PATCH CODE FOR HPS LUMINAIRES

1000 WATT - NO PATCH
400 WATT - ORANGE
310 WATT - BLUE
250 WATT - ORANGE WITH WHITE STRIPE
200 WATT - RED
150 WATT - GREEN
100 WATT - BROWN
70 WATT - BROWN WITH WHITE STRIPE

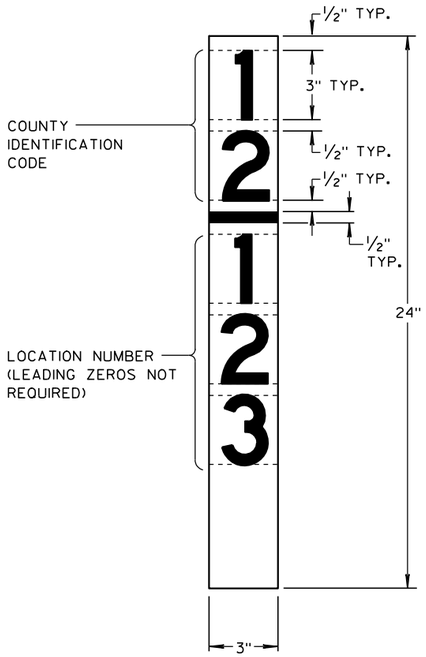


LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

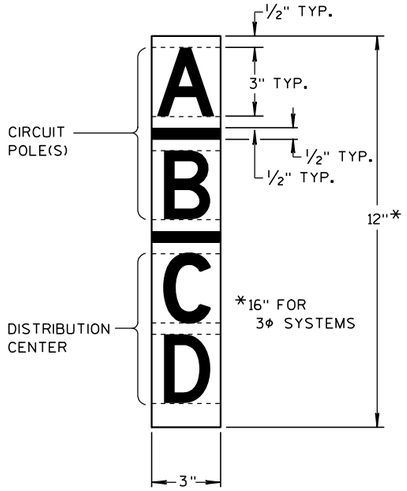
IDENTIFICATION PLAQUES LIGHT POLES

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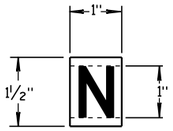
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HIGH MAST LIGHT TOWER STRUCTURE PLAQUE

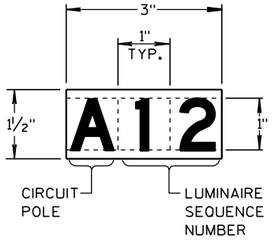


UNDERDECK LIGHTING OR HIGH MAST LIGHT TOWER CIRCUIT PLAQUE



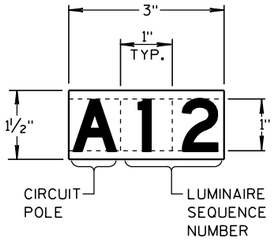
HIGH MAST LIGHT TOWER NORTH PLAQUE

(MOUNT ON LOWERING RING - INDICATING NORTH HEADING ^{2} ± $10^{\circ 3}$ WHEN RING IS RAISED AND LATCHED)



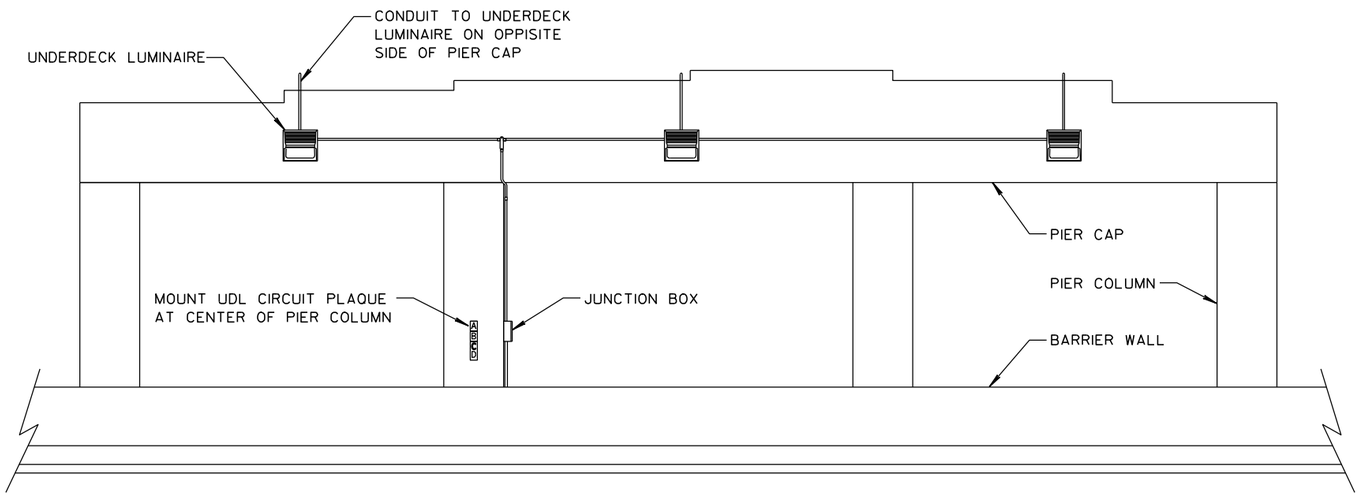
HIGH MAST LIGHT TOWER LUMINAIRE SEQUENCE PLAQUE

(MOUNT ON LUMINAIRE RING)



UNDER DECK LUMINAIRE SEQUENCE DECAL

(MOUNT ON LUMINAIRE)



LOCATION OF UNDERDECK LIGHTING CIRCUIT PLAQUE

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

CONCRETE SURFACE - MASONRY ANCHORS

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

PLAQUE MATERIALS:

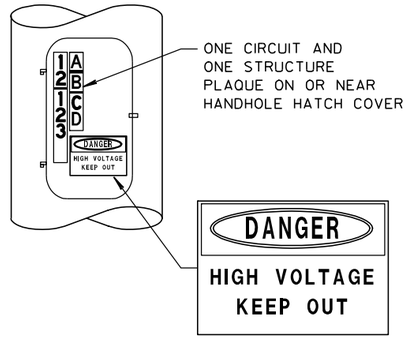
BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.



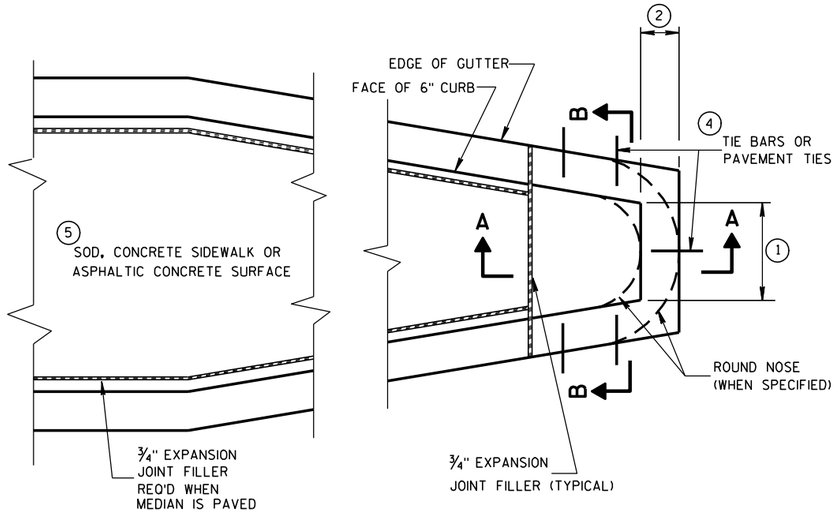
NOTE: NEMA PLAQUE SHOWN ABOVE IS REQUIRED ONLY IN PARK AND RIDE LOTS OR IN OTHER PEDESTRIAN ACCESSIBLE AREAS.

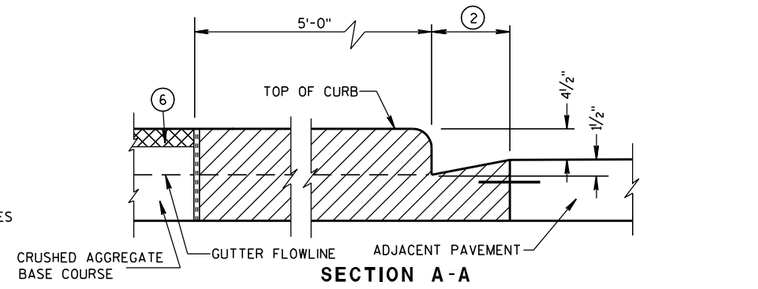
LOCATION OF HIGH MAST LIGHT TOWER STRUCTURE PLAQUE AND CIRCUIT PLAQUE

IDENTIFICATION PLAQUES UNDERDECK AND HIGH MAST LIGHTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/25/2010 DATE
/S/ John Corbin STATE ELECTRICAL ENGI
386
HWYS
FHWA





CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

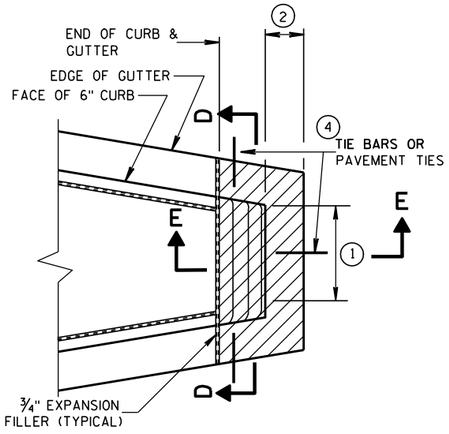
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

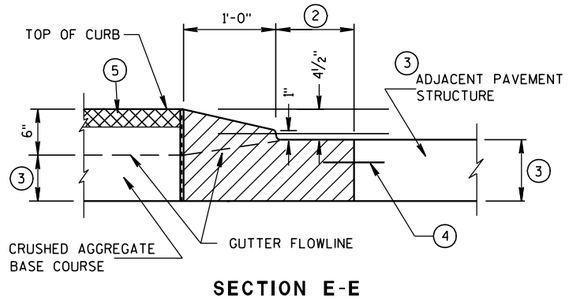
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

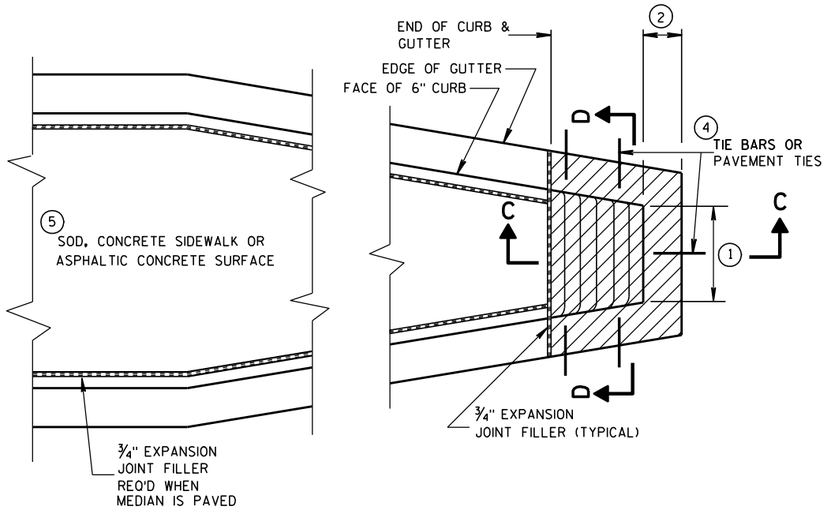
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

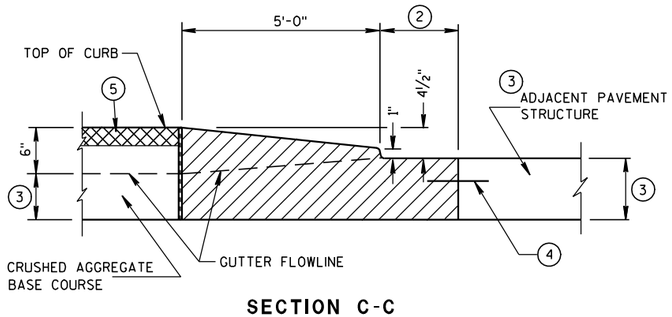




SECTION E-E

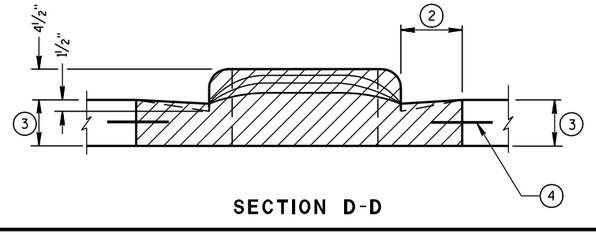
CONCRETE MEDIAN SLOPED NOSE TYPE 2





SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

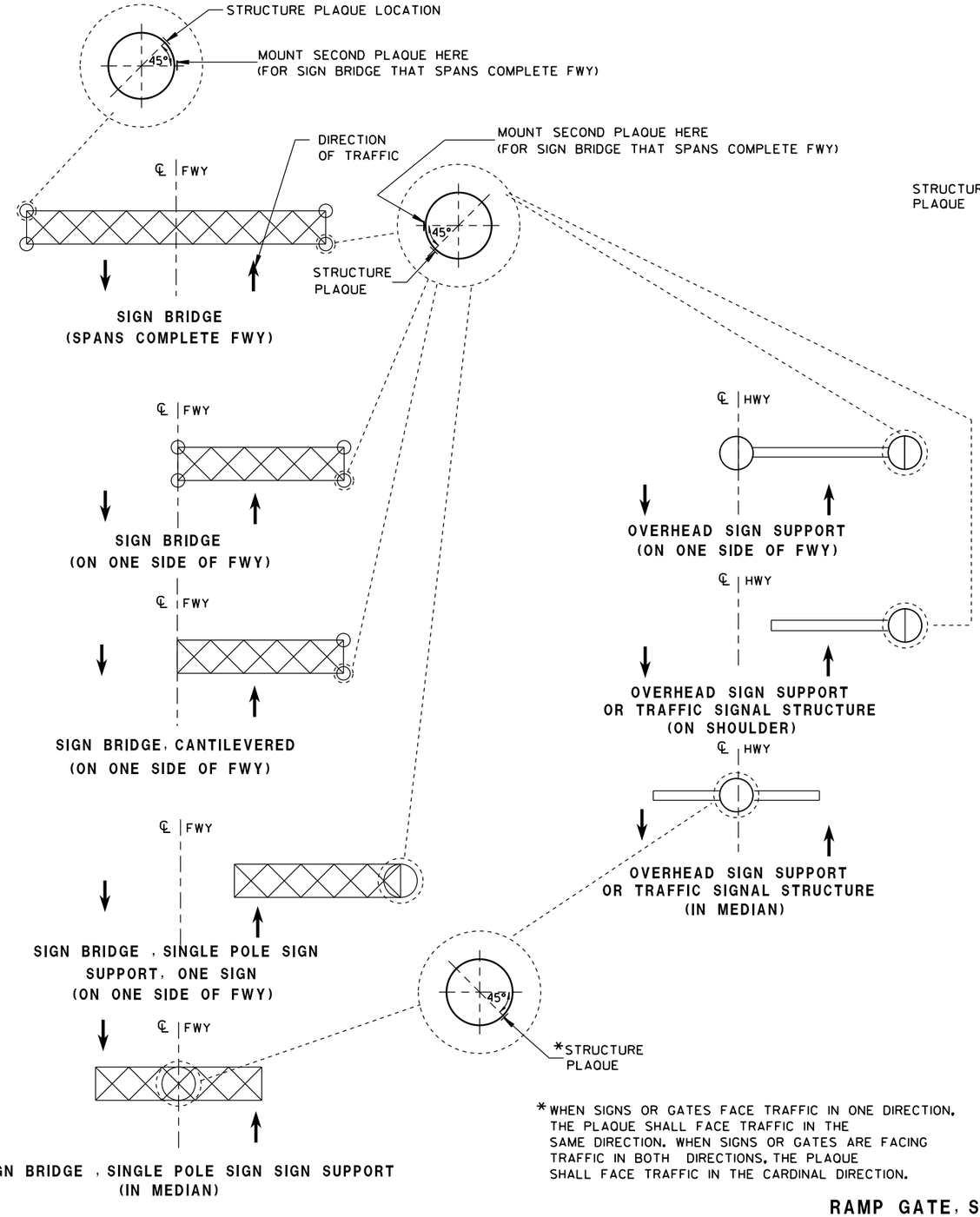
CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE FHWA	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER 387
	NT

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S.D.D. 11 B 2-2

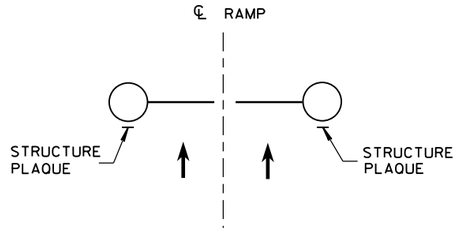
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S.D.D. 11 B 2-2

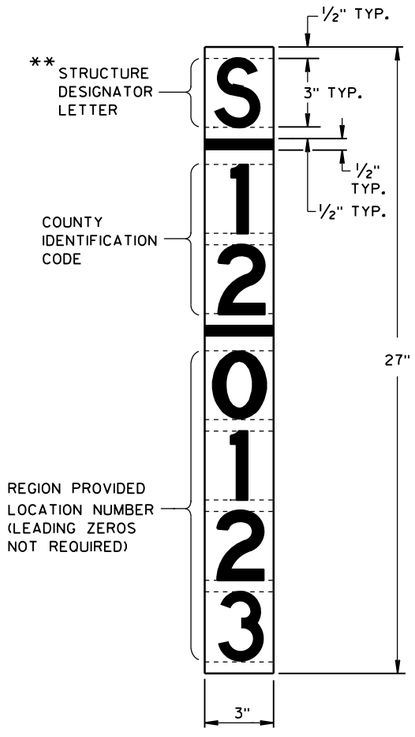


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



**RAMP GATE
(ACROSS FWY ON-RAMP)**



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

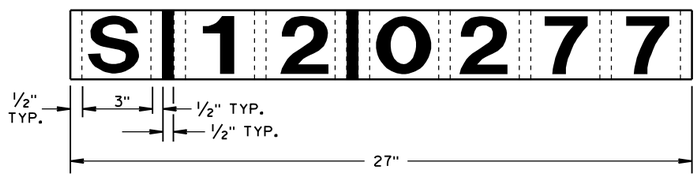
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

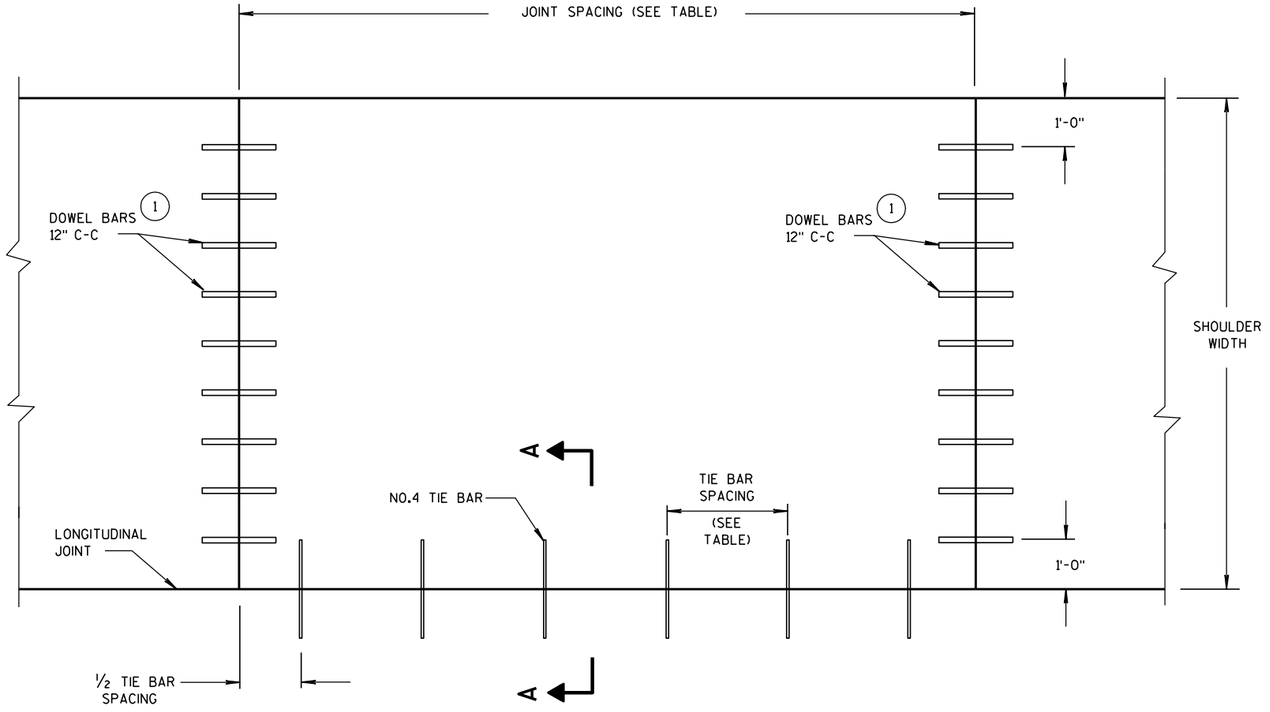
APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 12 A 4-3

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S.D.D. 12 A 4-3



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

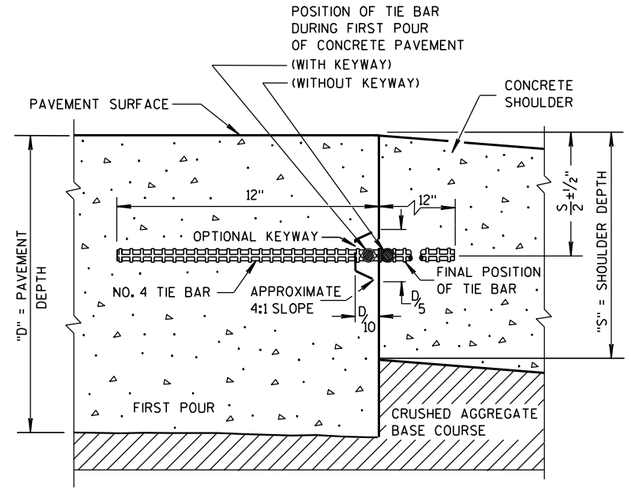
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT

PAVEMENT TYPE OF TRAFFIC LANES	TIE BAR SPACING	SHOULDER JOINT SPACING
NON-REINFORCED	30"	MATCH JOINT SPACING OF ADJACENT TRAFFIC LANE
CONTINUOUSLY REINFORCED	30"	15' FOR 6' TO 10' WIDE SHOULDERS
CONTINUOUSLY REINFORCED	36"	12' FOR 3' WIDE SHOULDERS

(1)

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

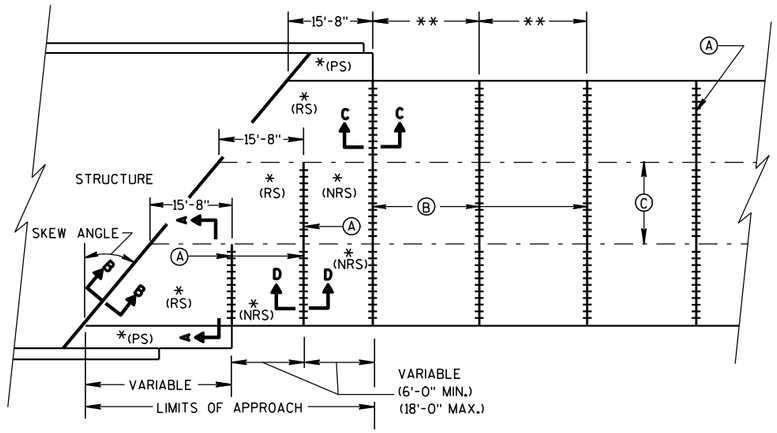
CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

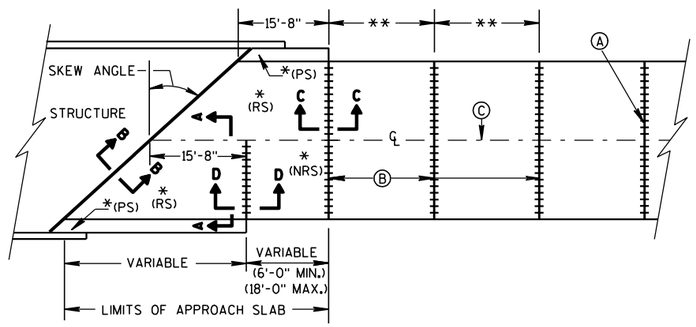
APPROVED
8/15/2011 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & D — INEER
FHWA

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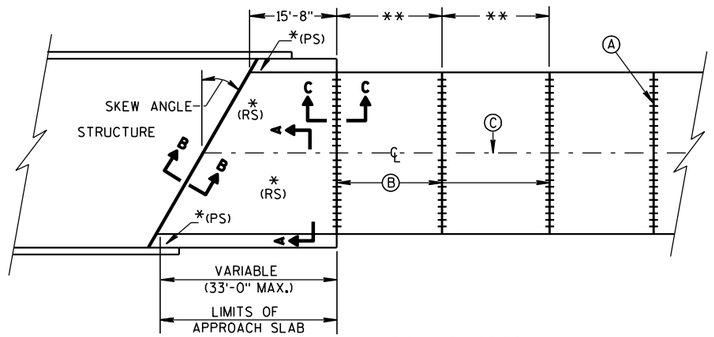
S.D.D. 13 A 3-5



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >30°
(PAVEMENT WIDTH ≤30')



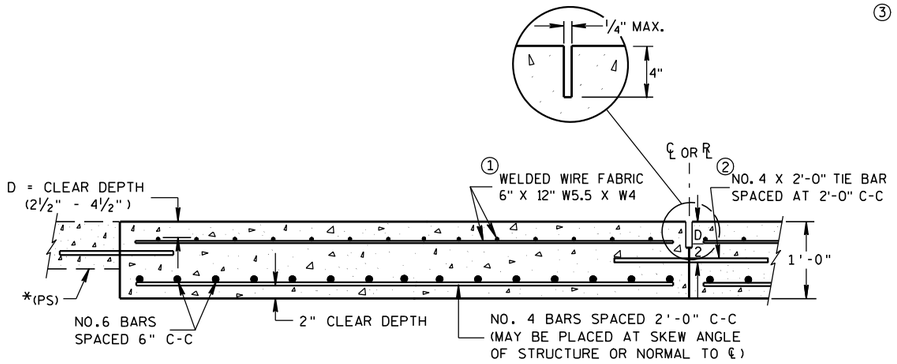
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

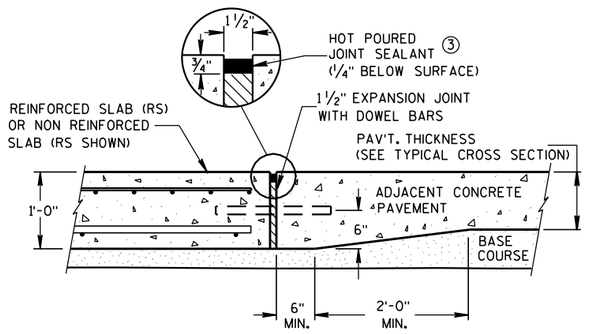
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING
(SEE SDD 13C4, SDD 13C11, & SDD 13C13)

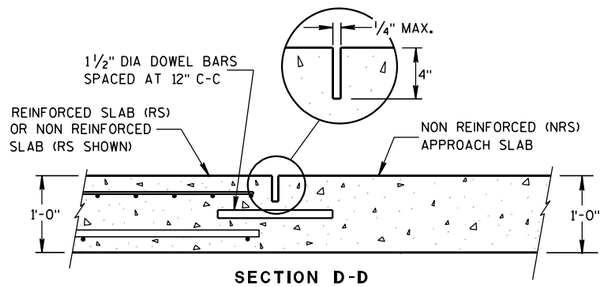
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
(B) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄
(C) STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

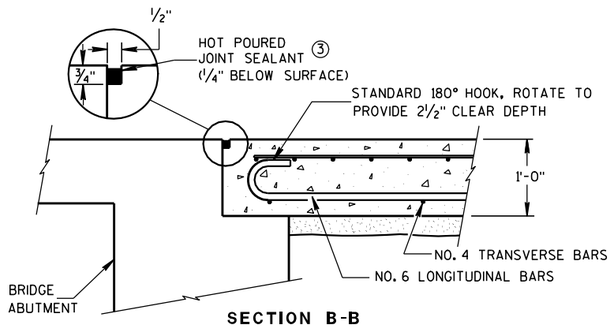
APPROACH SLABS ABUTTING AN HMA PAVEMENT OVER BASE COURSE DO NOT NEED TO BE DOWELED.

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

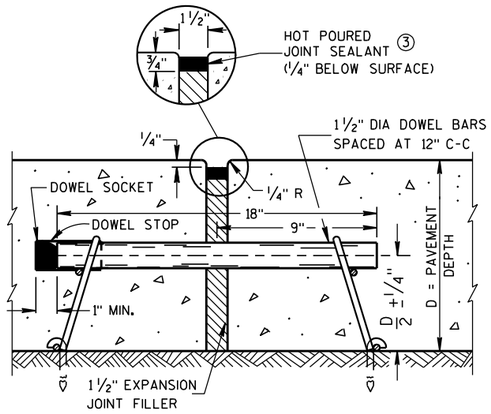
(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

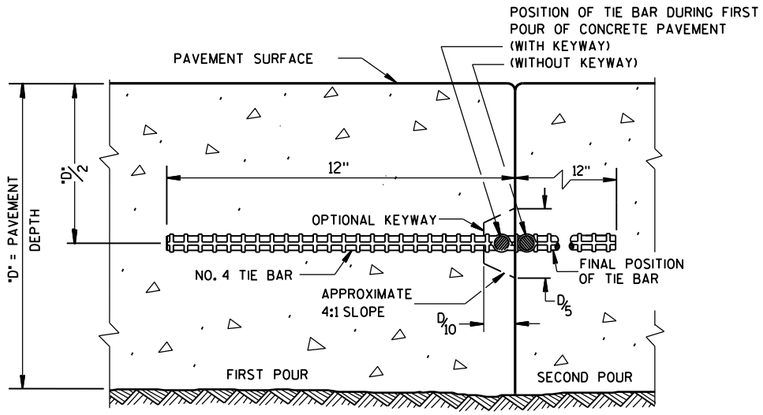
APPROVED
12/11/2009
DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE 390 NEER
FHWA

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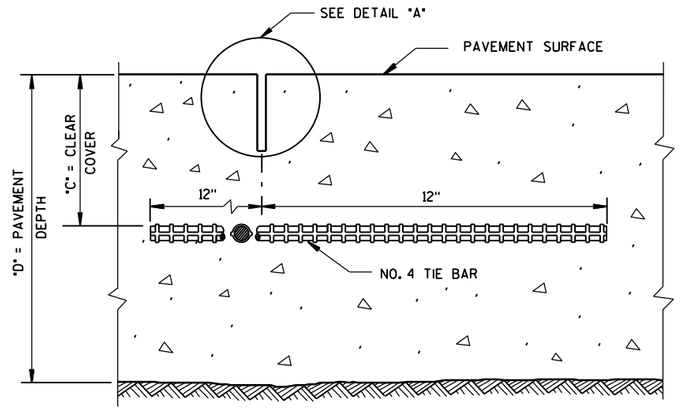
S.D.D. 13 B 2-6

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S.D.D. 13 B 2-6



CONSTRUCTION JOINT



SAWED JOINT

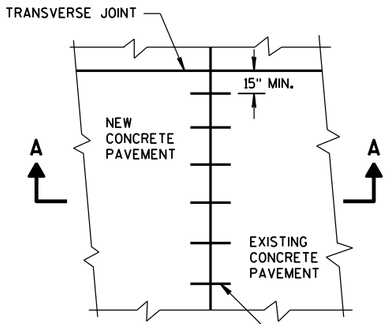
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

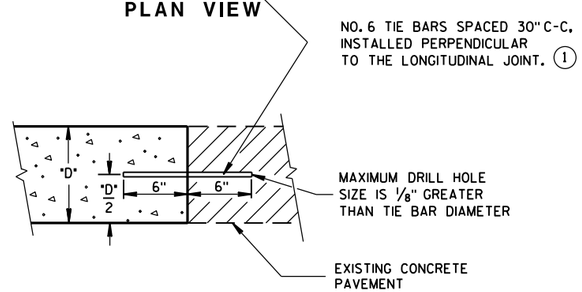
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

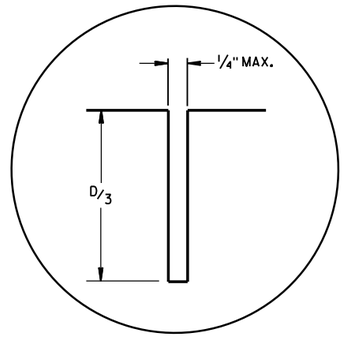


PLAN VIEW



SECTION A-A

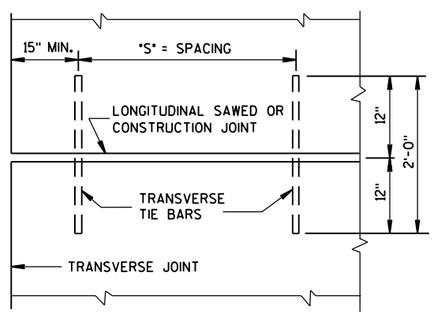
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

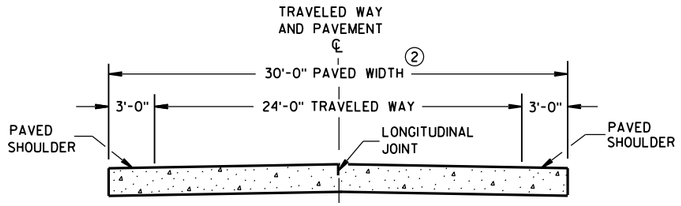
5-3-2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE ...NEER

FHWA

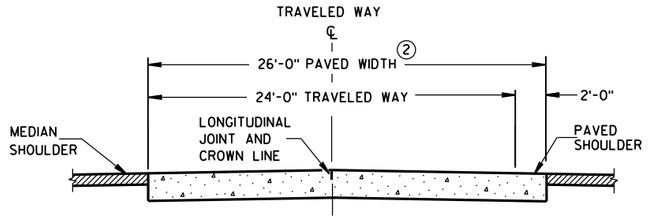
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S.D.D. 13 C 1-16

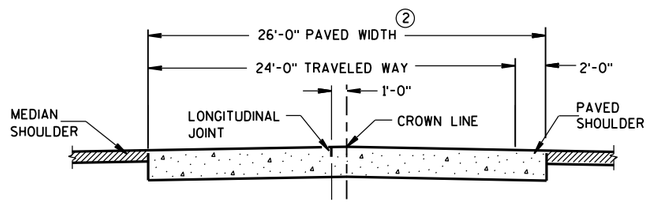


SECTION A-A ①

TWO-LANE TWO-WAY HIGHWAY



SECTION B-B



ALTERNATIVE SECTION B-B ①

DIVIDED HIGHWAY

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

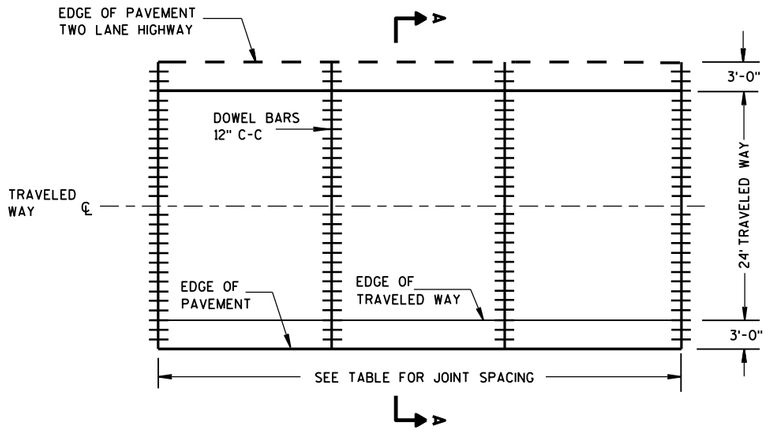
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

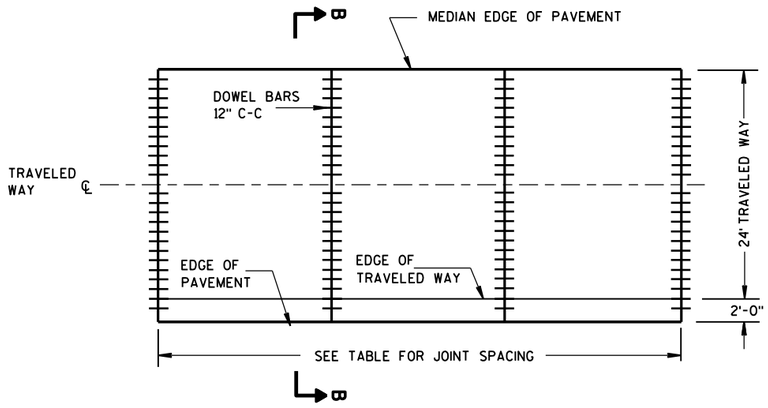
② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



CONTRACTION JOINT LAYOUT
FOR TWO-LANE TWO-WAY HIGHWAY



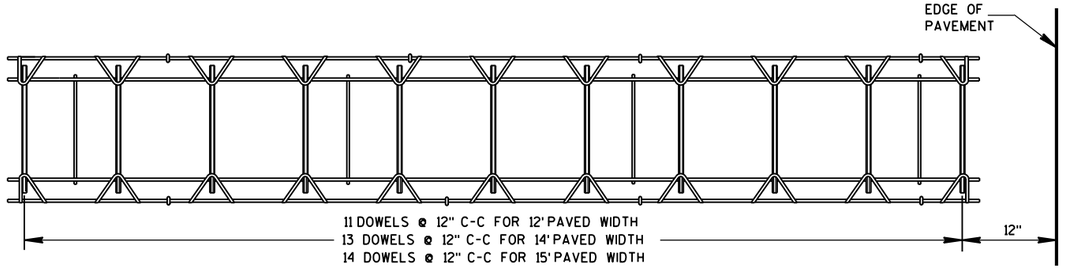
CONTRACTION JOINT LAYOUT
FOR DIVIDED HIGHWAY

RURAL DOWELED
CONCRETE PAVEMENT

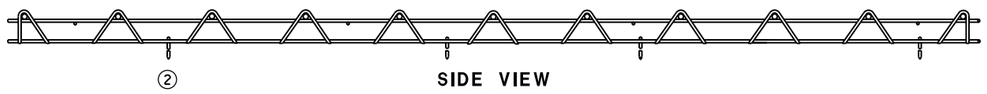
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 13 C 11-11a



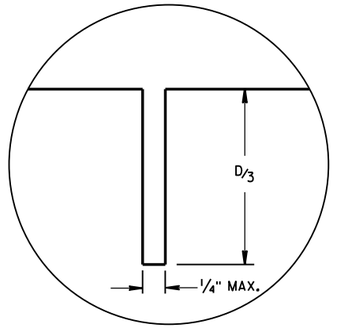
PLAN VIEW



SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY ①



JOINT DETAIL

GENERAL NOTES

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

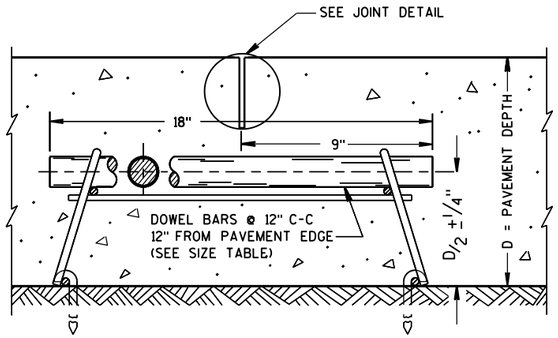
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

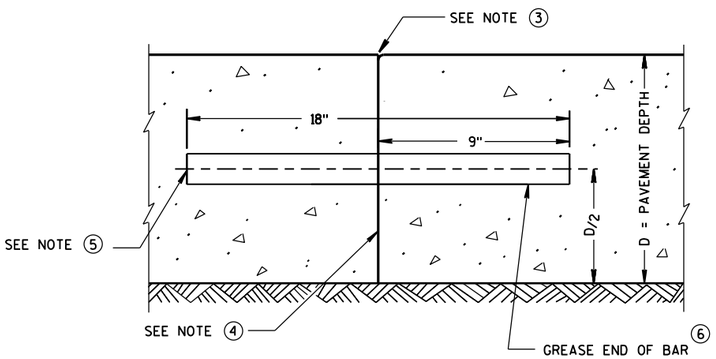
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

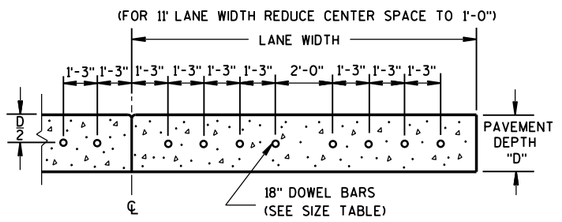
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE 393 NEER

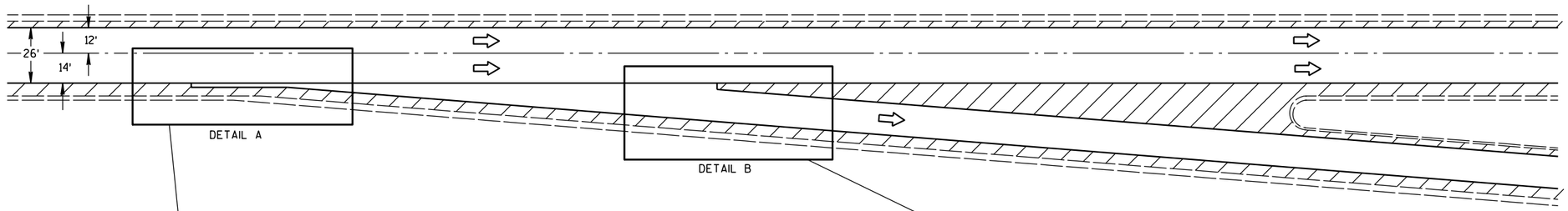
FHWA

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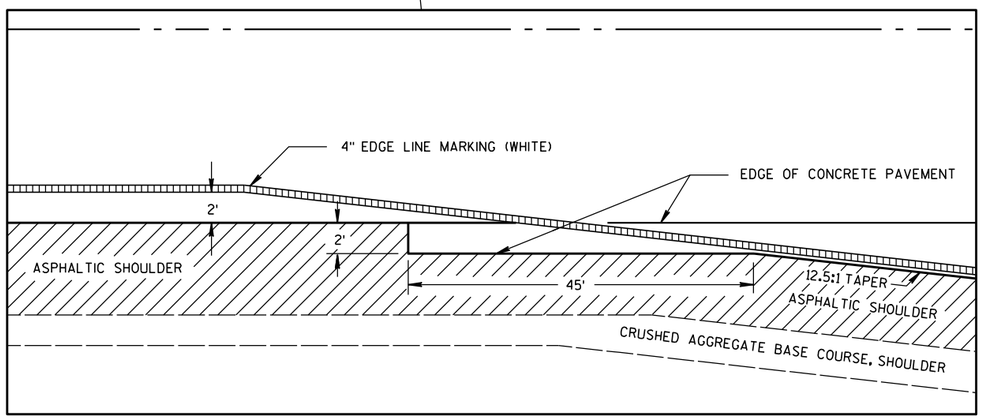
S.D.D. 13 C 11-11b

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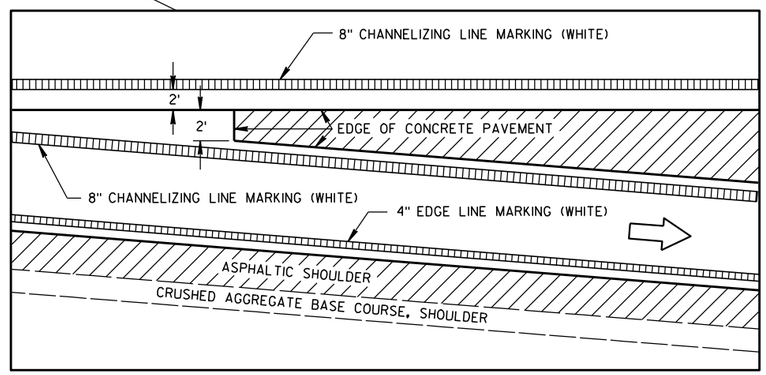
S.D.D. 13 C 11-11b



EXIT RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR EXIT RAMP TERMINI

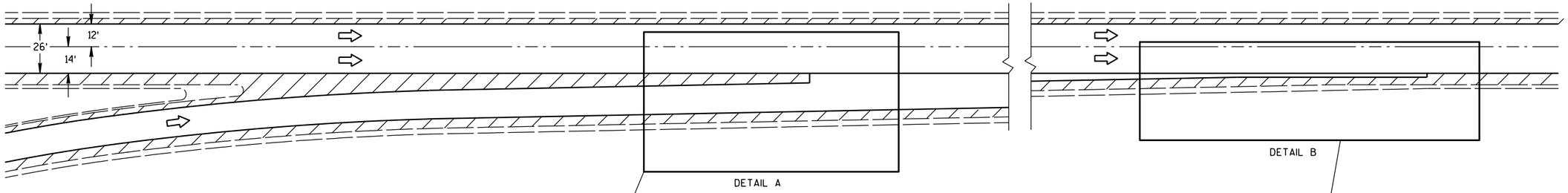
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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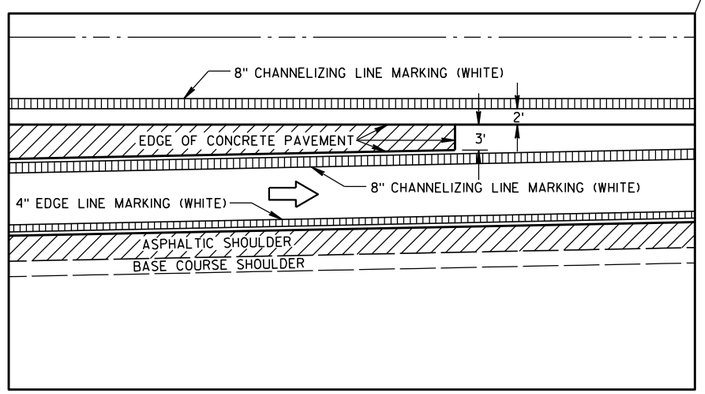
S.D.D. 13 C 17-1a

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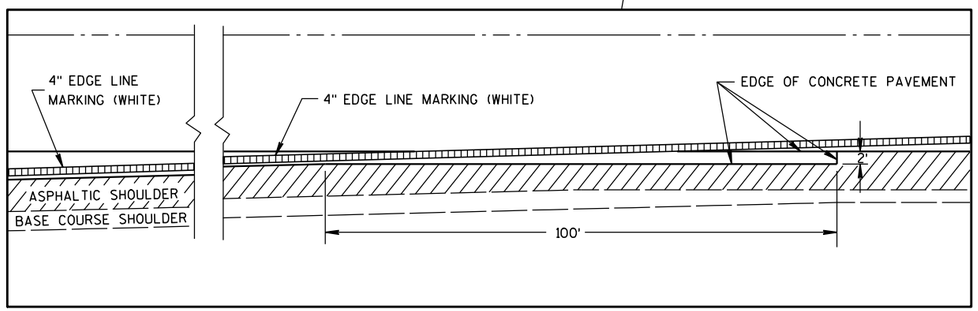
S.D.D. 13 C 17-1a



ENTRANCE RAMP DETAIL



DETAIL A



DETAIL B

CONCRETE JOINT PAVING DETAILS

GENERAL NOTES

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

SEE SDD 13 A 4-4c OR SDD 13 A 5-1b FOR RAMP AND GORE RUMBLE STRIP LOCATION.

CONCRETE JOINT DETAIL FOR ENTRANCE RAMP TERMINI

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

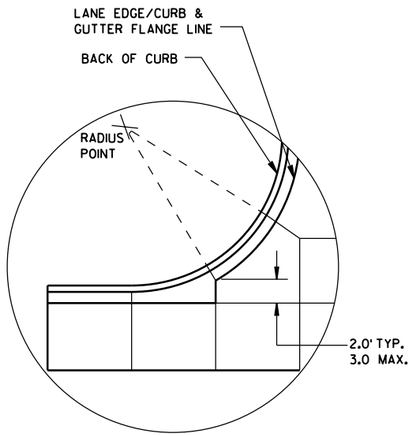
5/27/98
DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

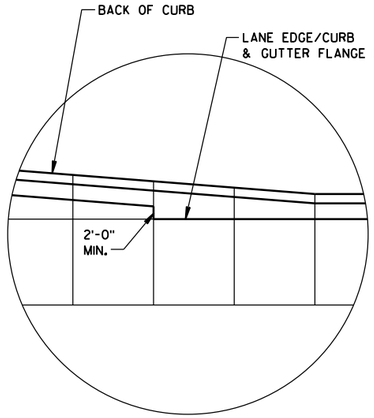
FHWA

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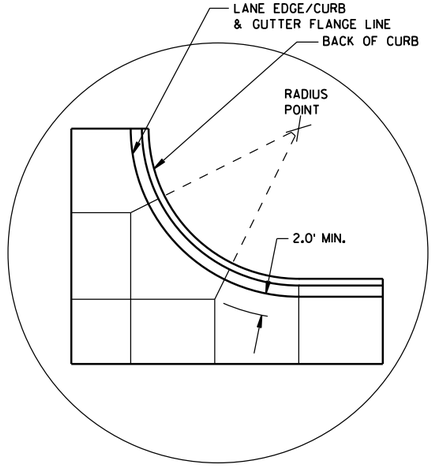
S.D.D. 13 C 17-1b



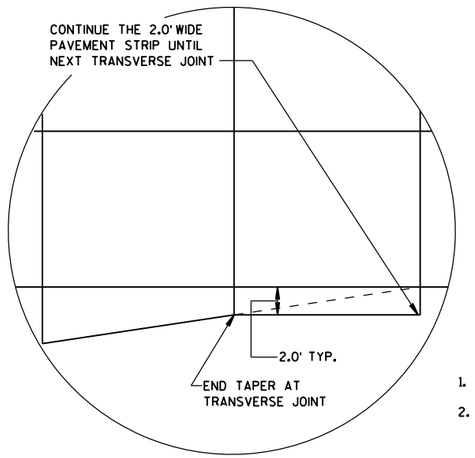
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

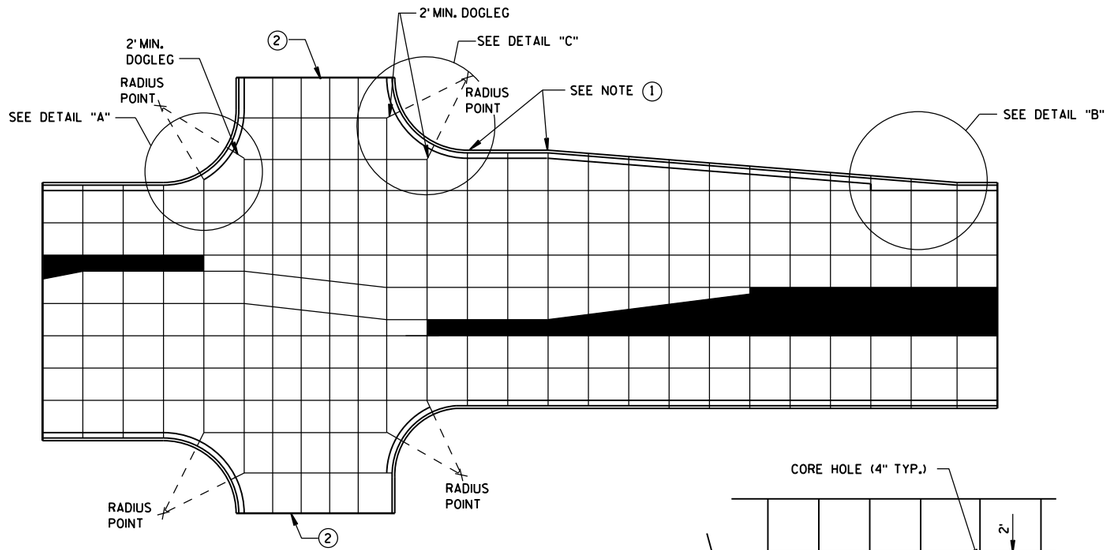
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.

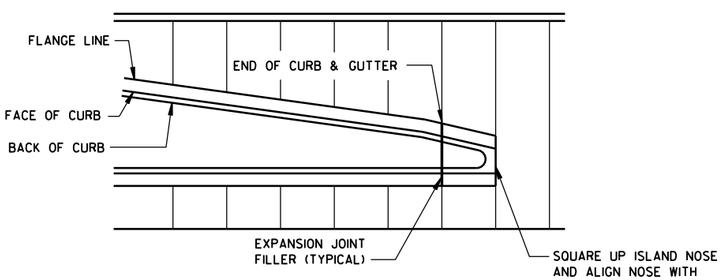


STANDARD INTERSECTION

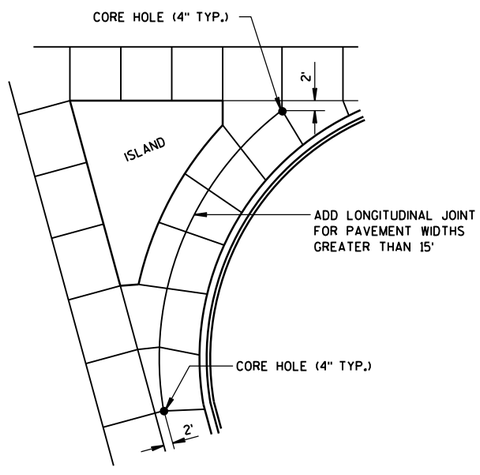
PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'

SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 396

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S.D.D. 13 C 18-2a

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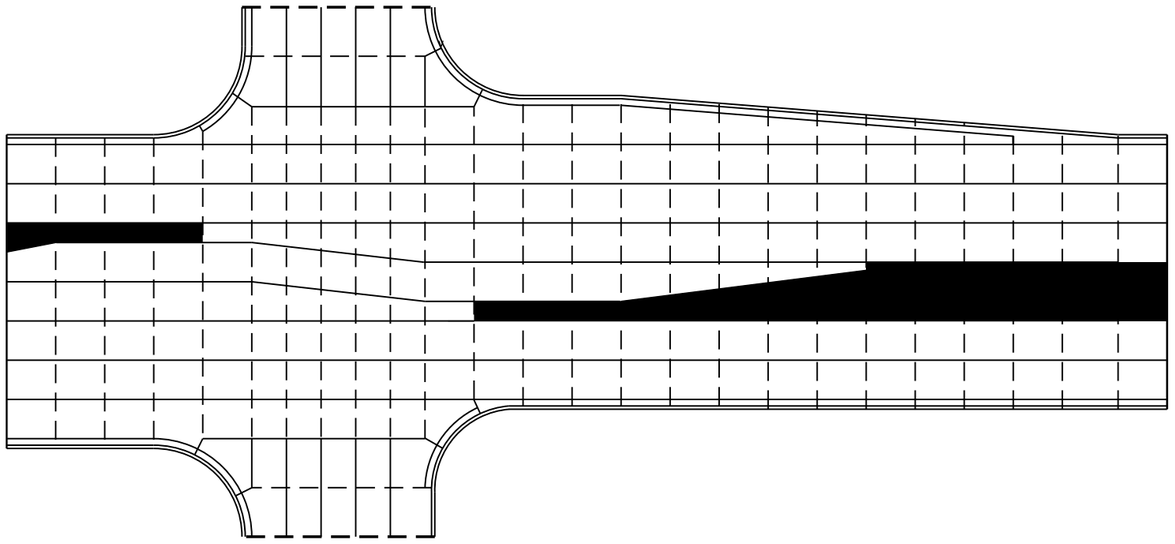
S.D.D. 13 C 18-2a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

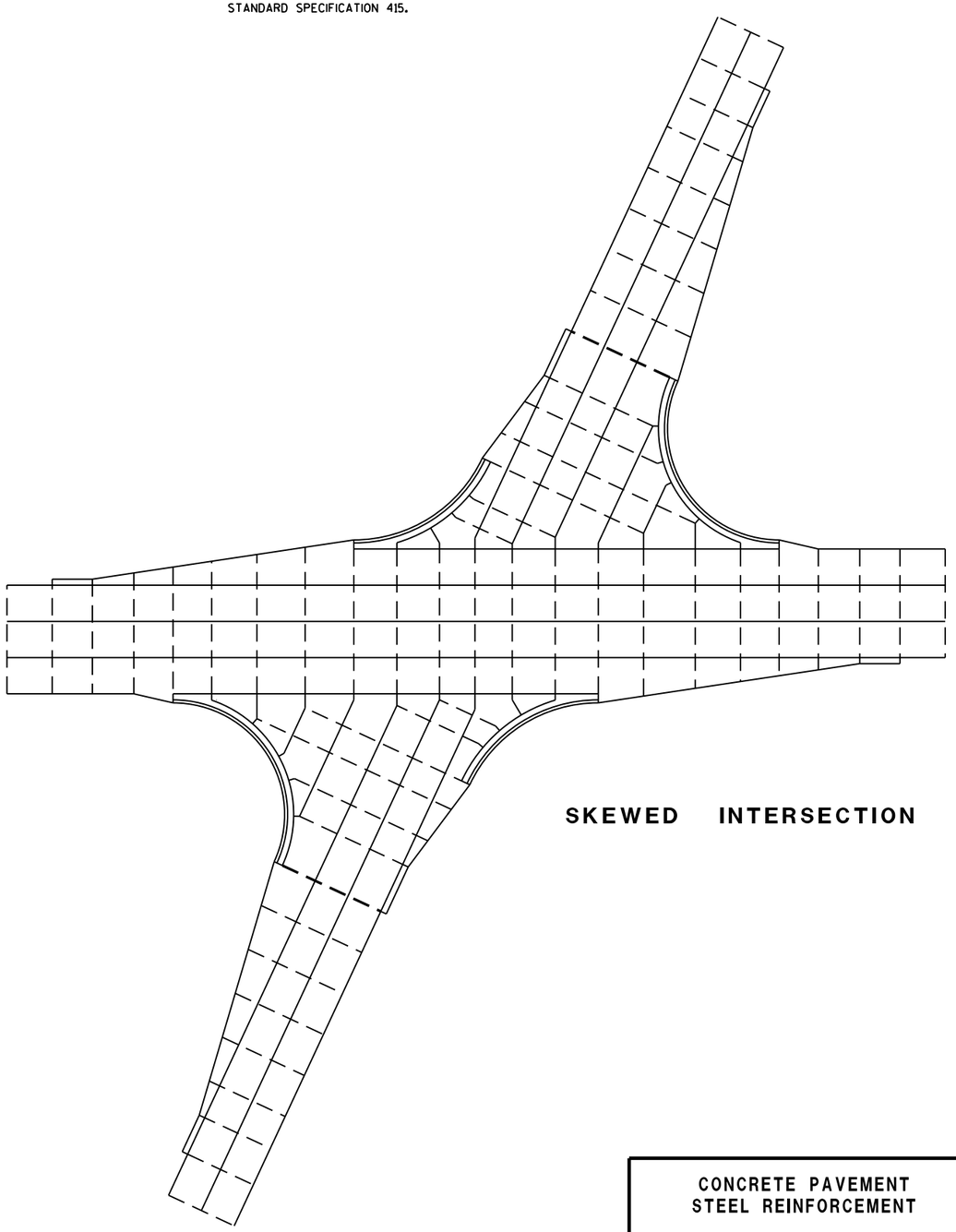
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

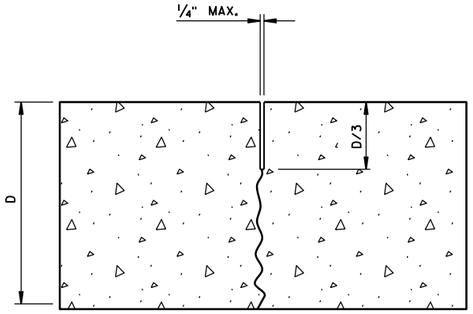
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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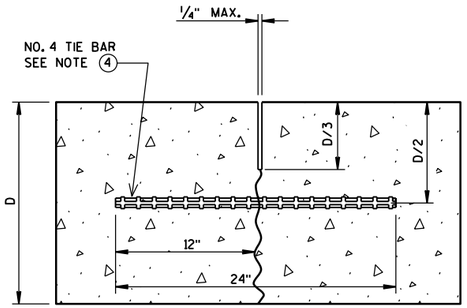
S.D.D. 13 C 18-2b

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S.D.D. 13 C 18-2b



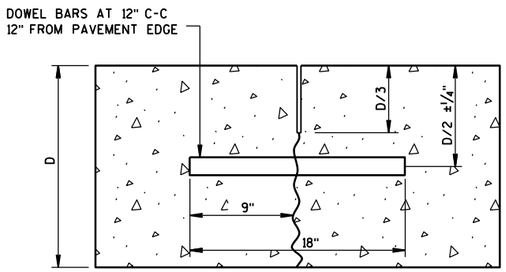
UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

GENERAL NOTES

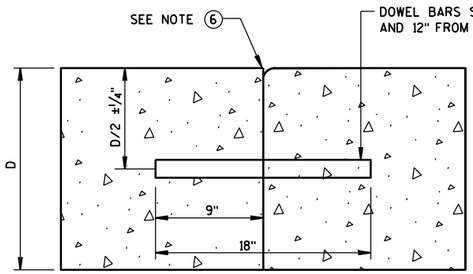
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.



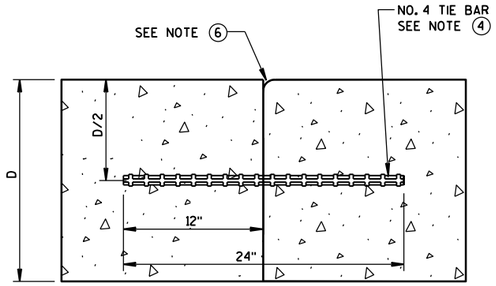
DOWELED-TRANSVERSE

CONTRACTION JOINTS

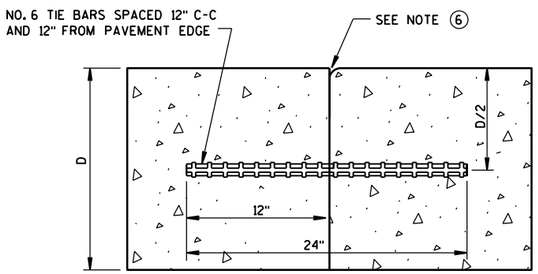
SEE NOTE (2)



DOWELED TRANSVERSE

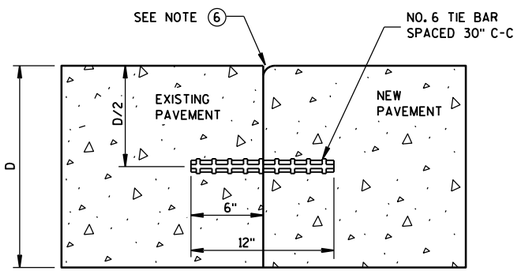


TIED LONGITUDINAL



TIED TRANSVERSE

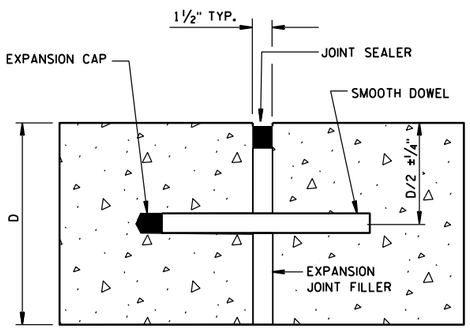
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

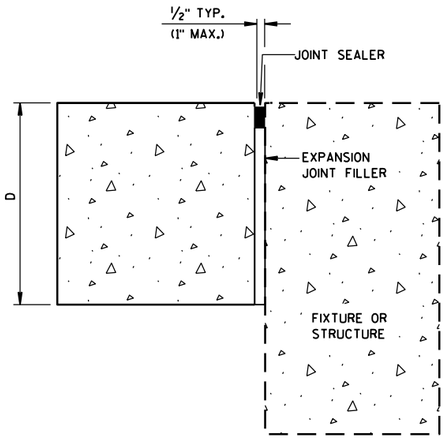
CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

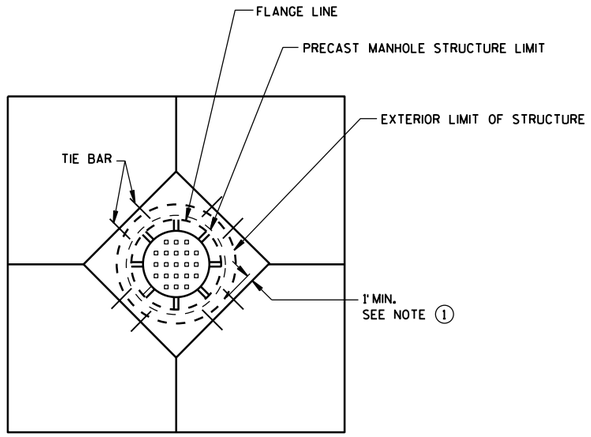
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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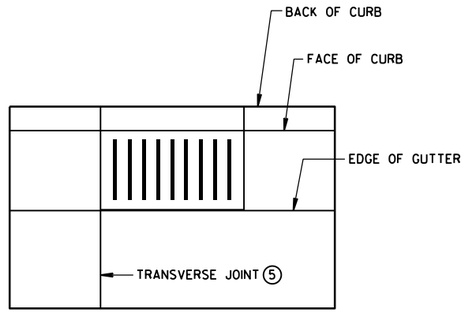
S.D.D. 13 C 18-2c

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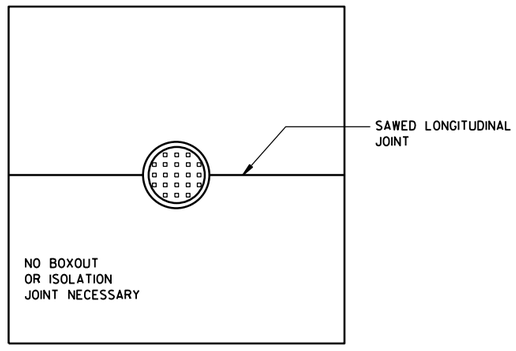
S.D.D. 13 C 18-2c



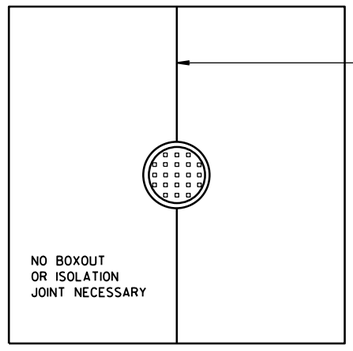
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



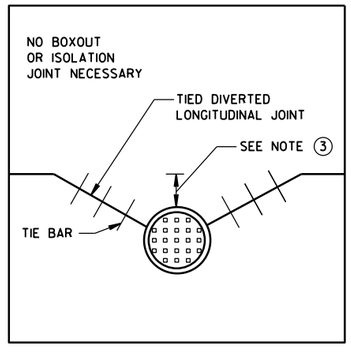
INLET WITH TRANSVERSE JOINT



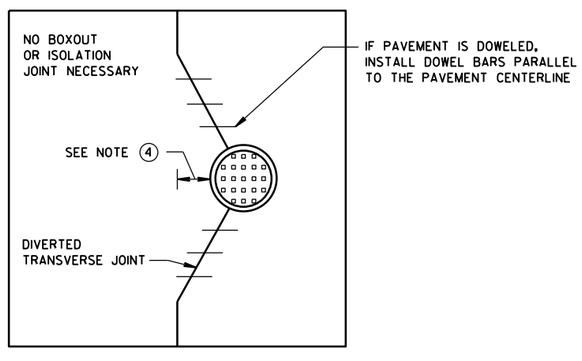
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-3-2013
DATE

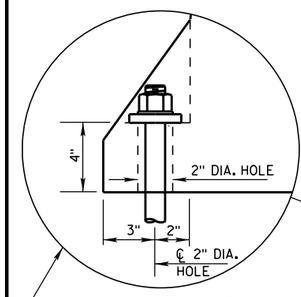
/S/ Deb Bischoff
PAVEMENT POLICY & DE

NEER

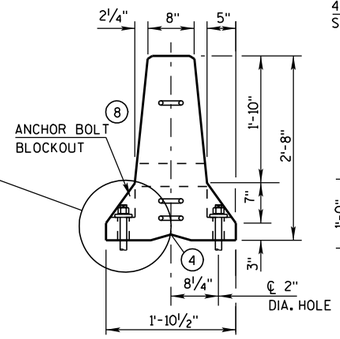
FHWA

6

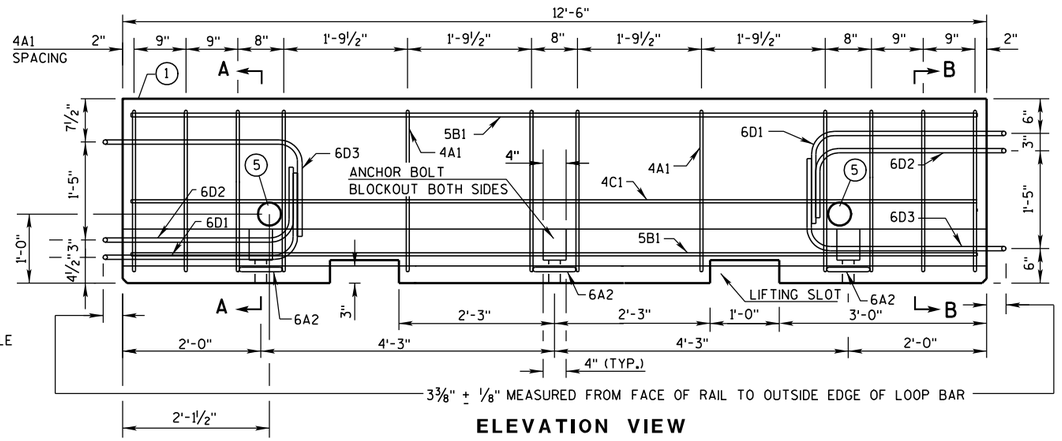
S.D.D. 13 C 18-2d



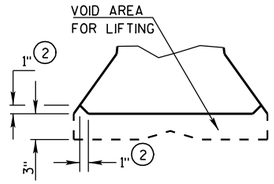
ANCHOR ON TRAFFIC SIDE (8) ONLY WHEN REQUIRED (SEE SHEET D FOR ADDITIONAL ANCHOR DETAIL)



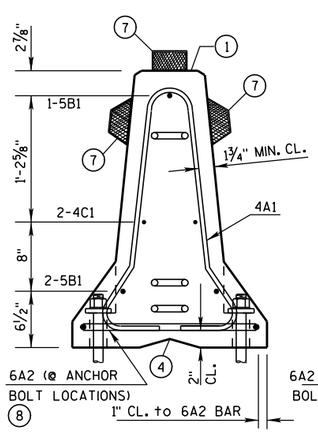
END VIEW



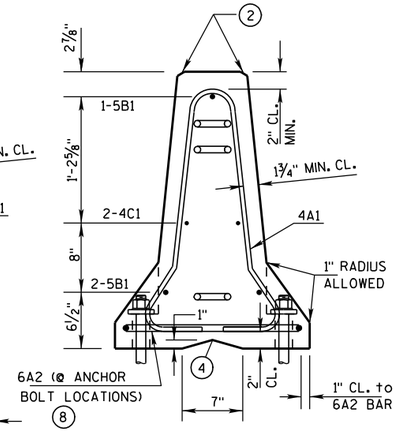
ELEVATION VIEW



DETAIL "B"
LIFTING SLOT DETAIL



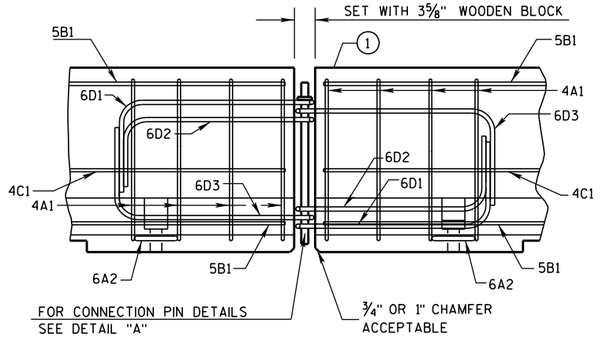
SECTION A-A
(STIRRUP PLACEMENT)



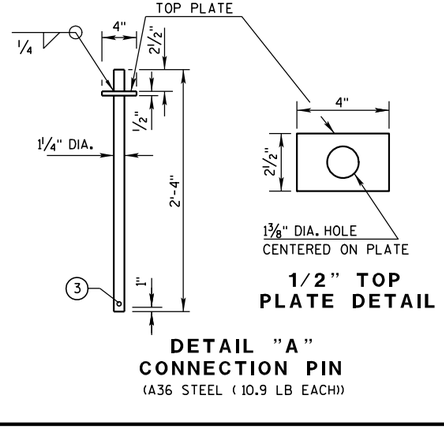
SECTION B-B
(STIRRUP PLACEMENT)

PLAN VIEW

DETAILS OF BARRIER SECTION

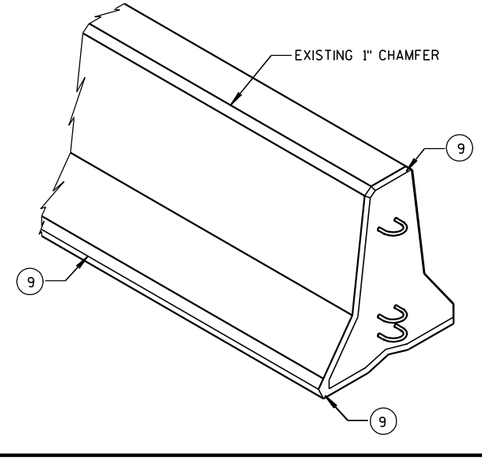


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(a) THRU 14B7-13(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WICBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

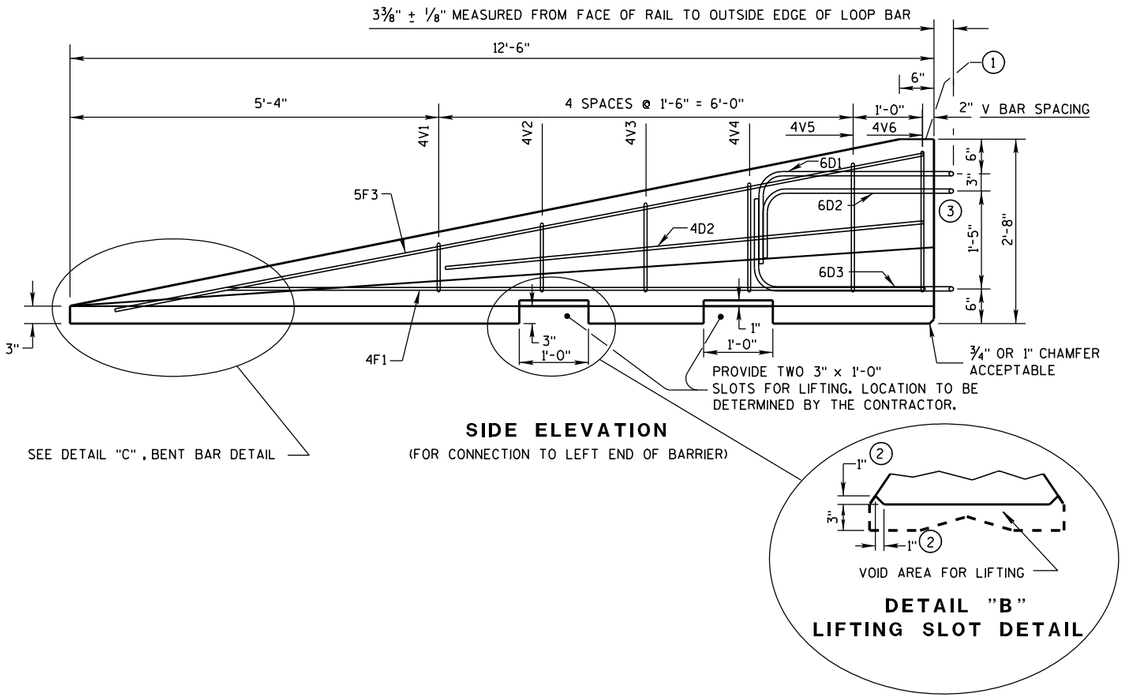
(8) SEE SHEET D FOR ANCHORING CRITERIA.

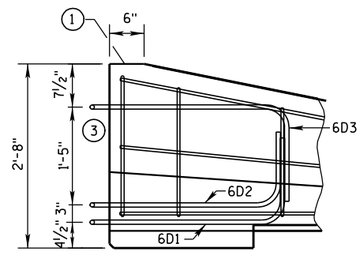
(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO.....

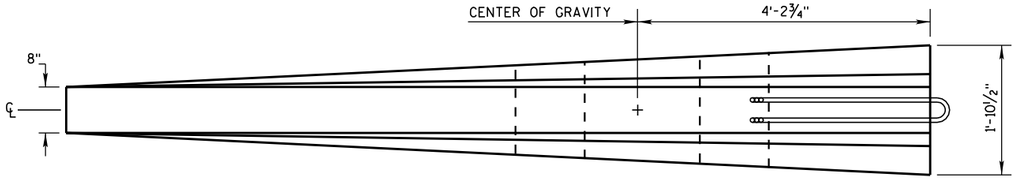
6
S.D.D. 14 B 7-13a

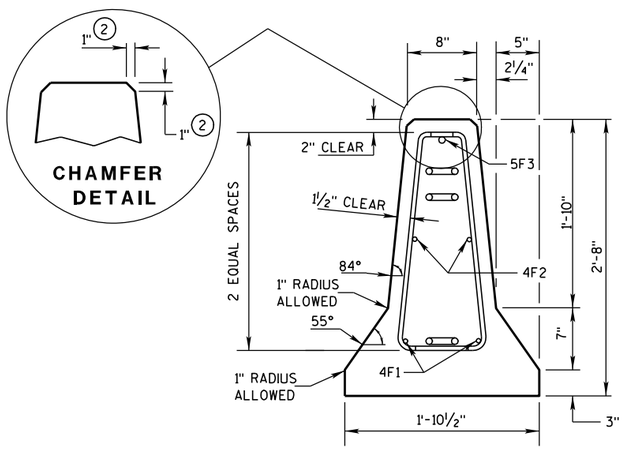


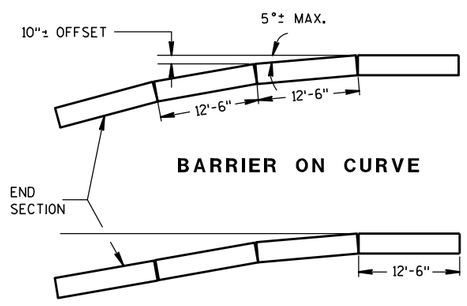


GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.







POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

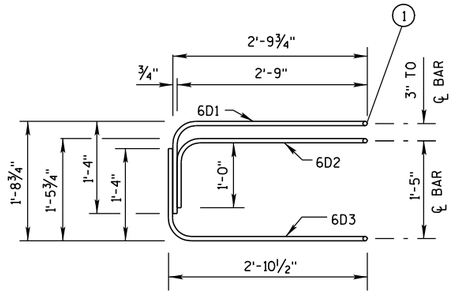
6

S.D.D. 14 B 7-13b

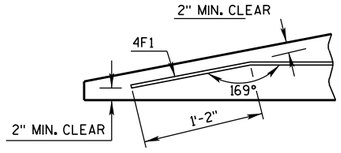
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

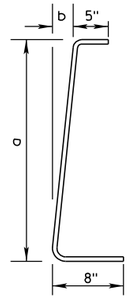
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

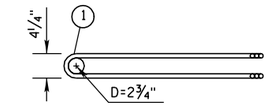
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

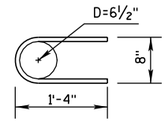
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

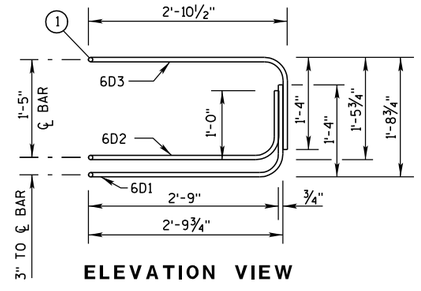
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



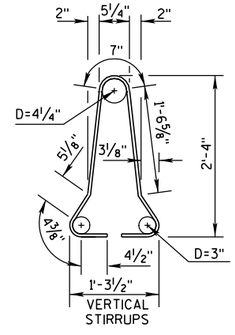
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



ELEVATION VIEW



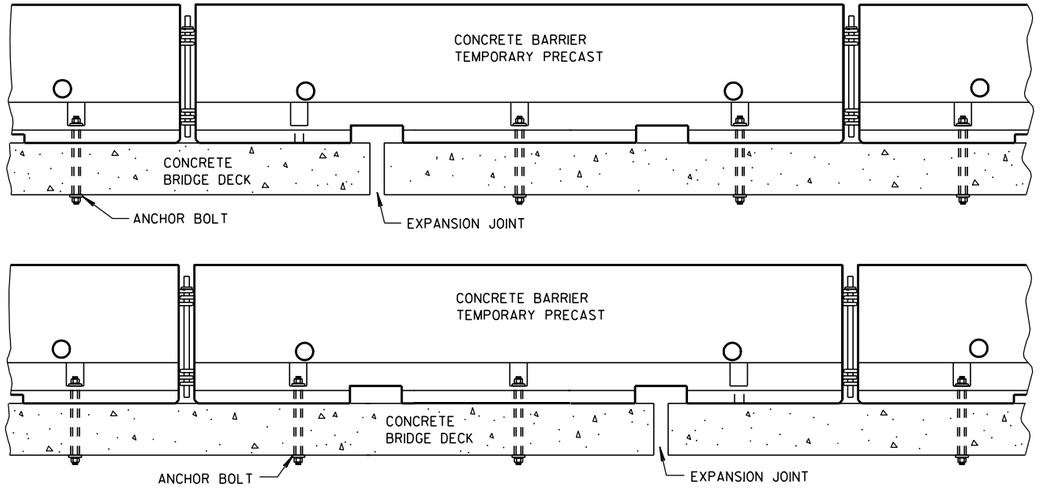
4A1

BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

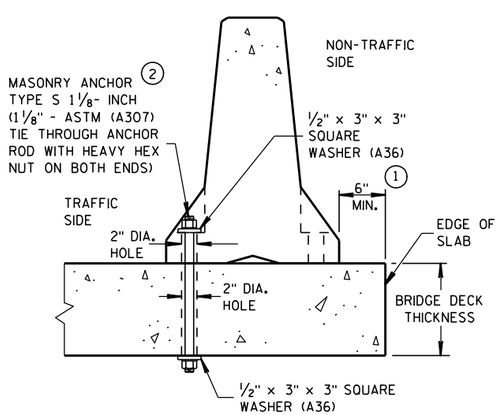
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 7-13c



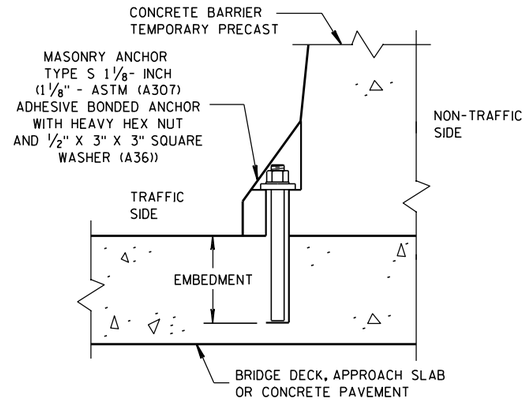
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

2

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

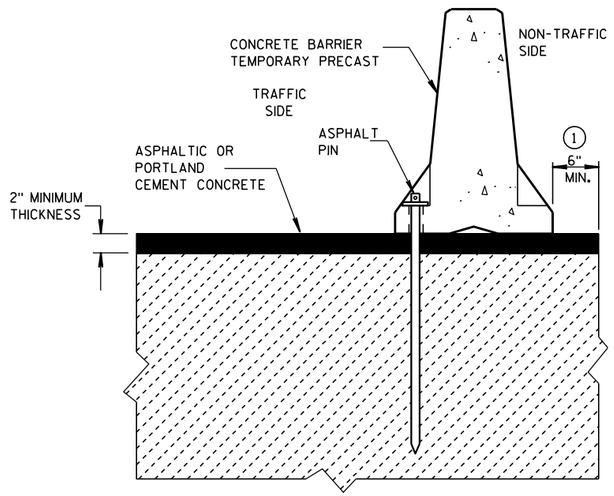
1. CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

2. ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

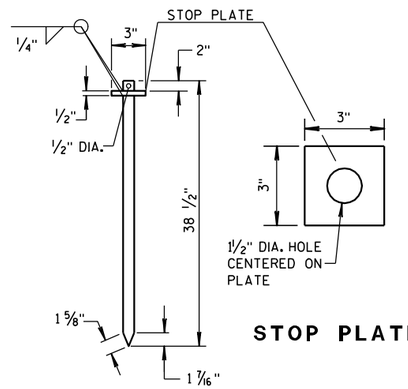
   WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

   UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALLANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

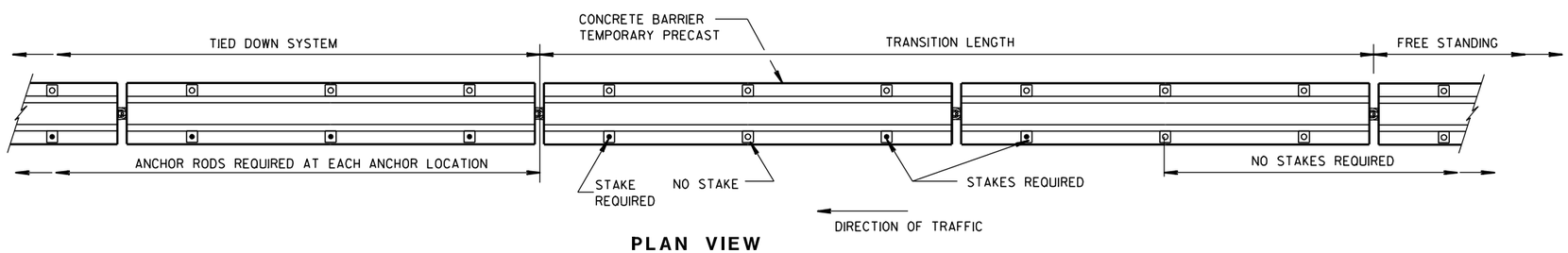
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



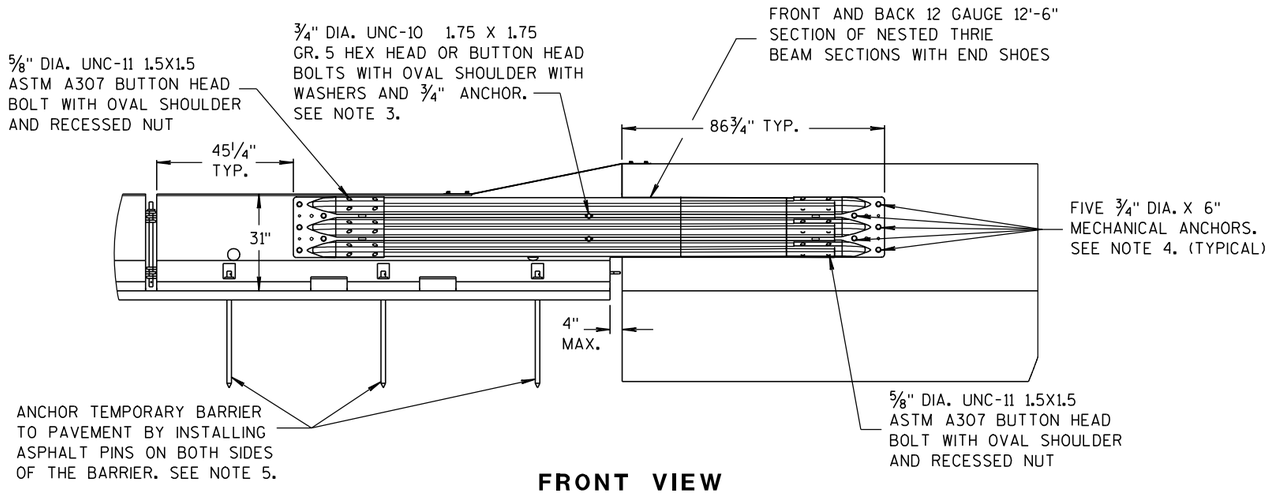
PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

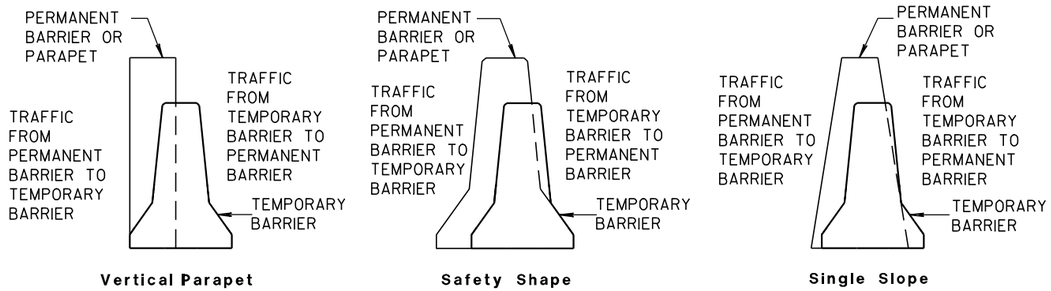
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

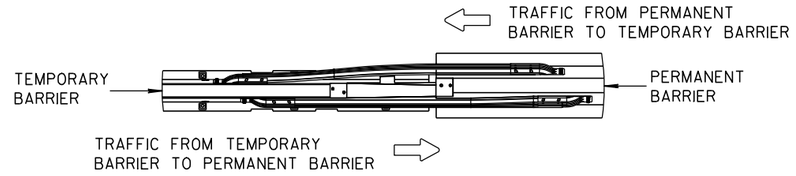


FRONT VIEW

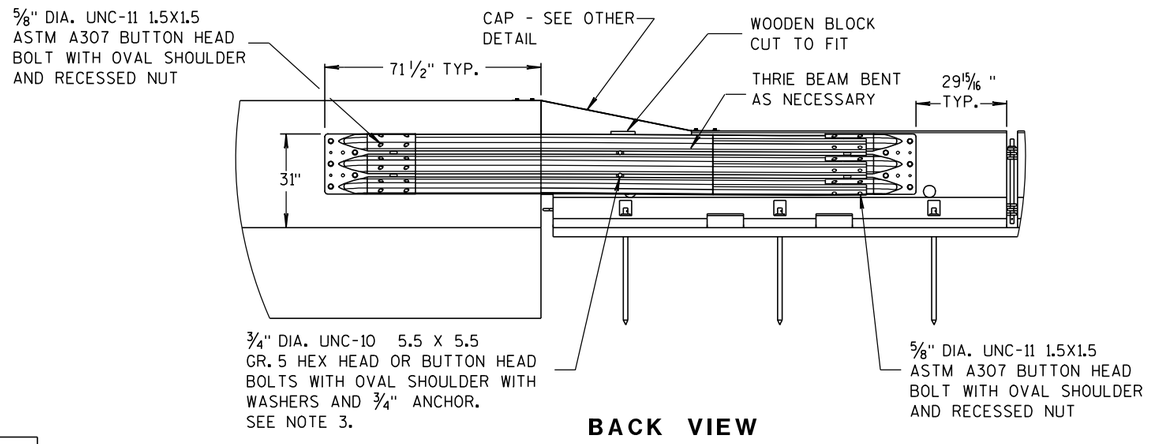
NOTES

1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

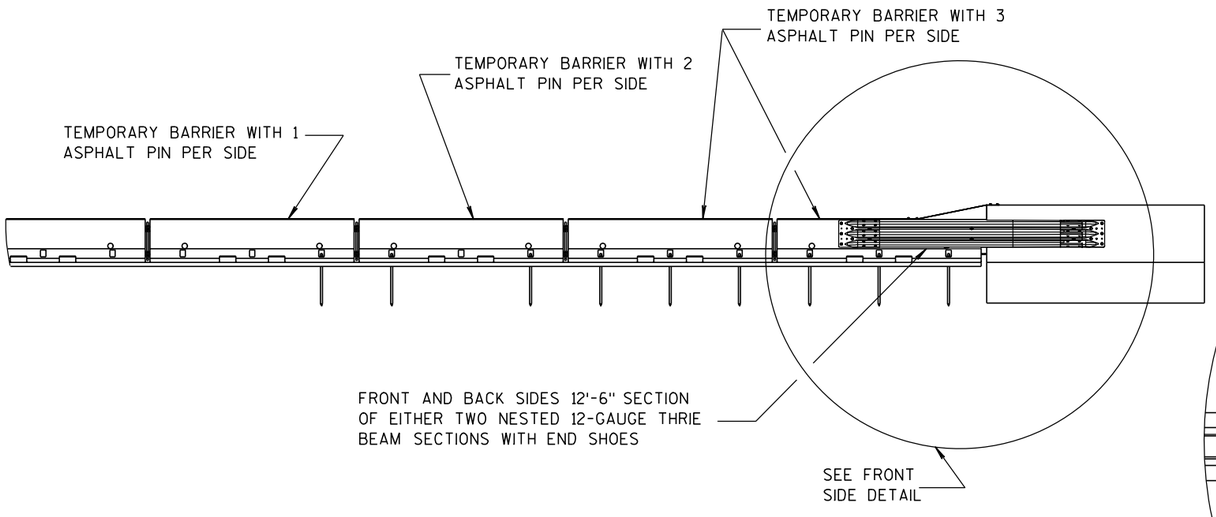




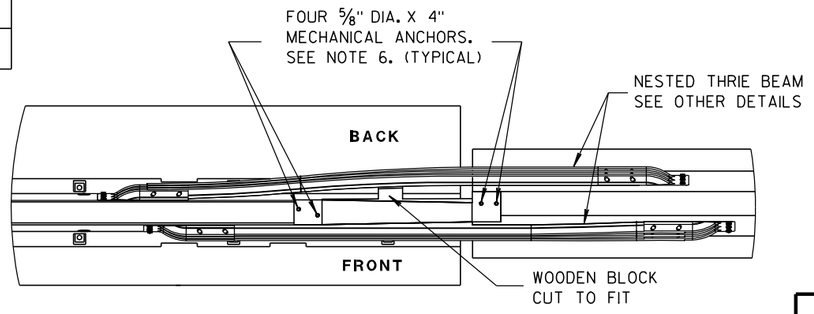
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW



FRONT VIEW



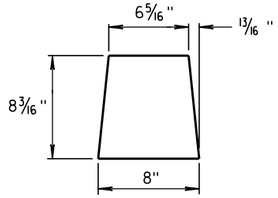
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

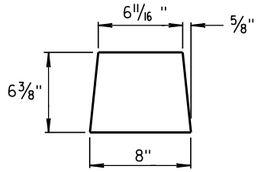
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

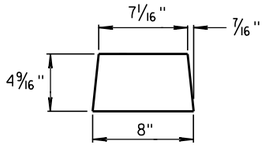
6
S.D.D. 14 B 7-13e



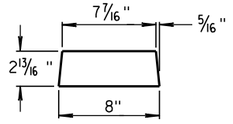
GUSSET 1



GUSSET 2

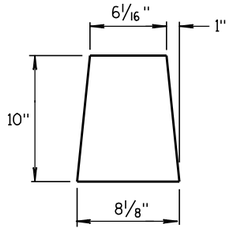


GUSSET 3

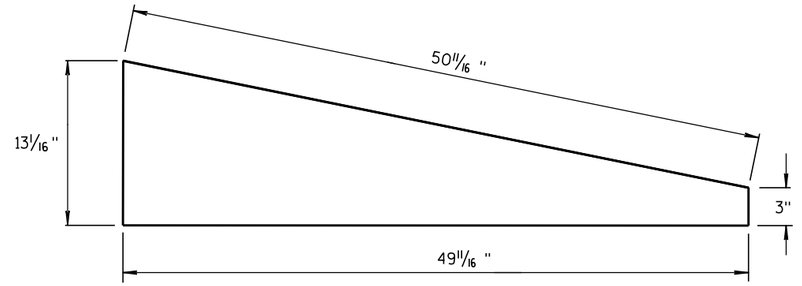


GUSSET 4

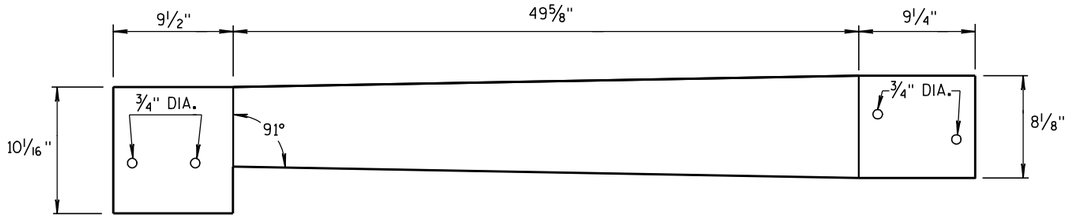
GUSSETS

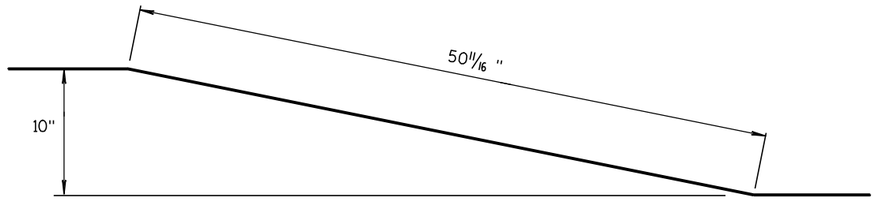


END PLATE

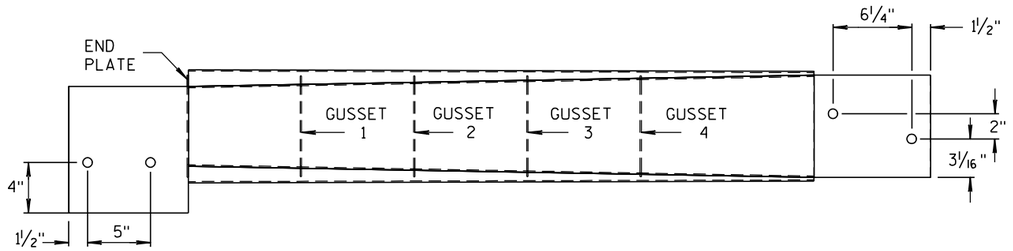


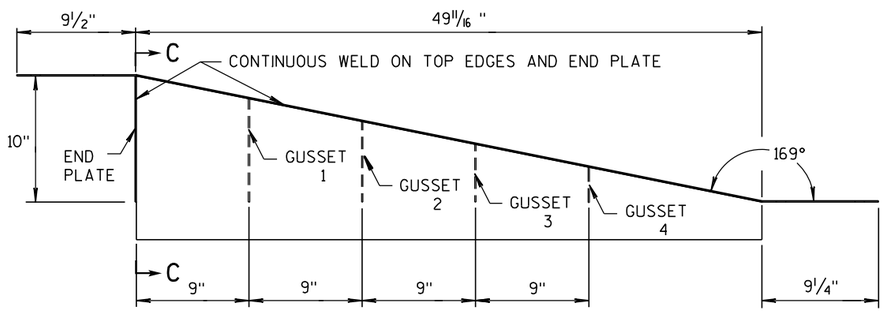
SIDE PLATE

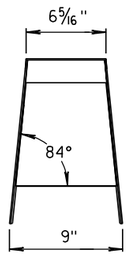




TOP PLATE







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

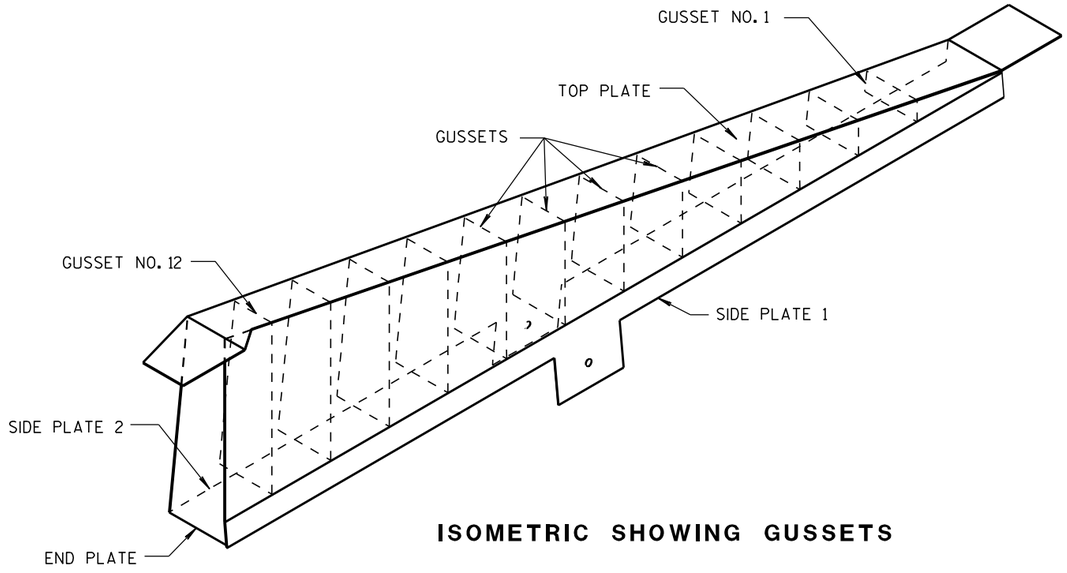
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

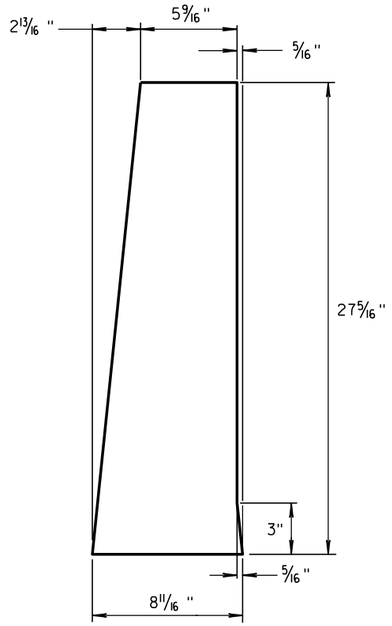
SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

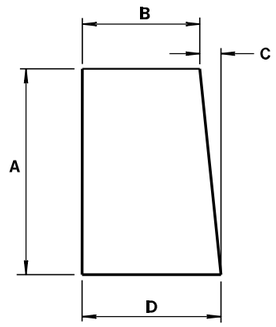


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



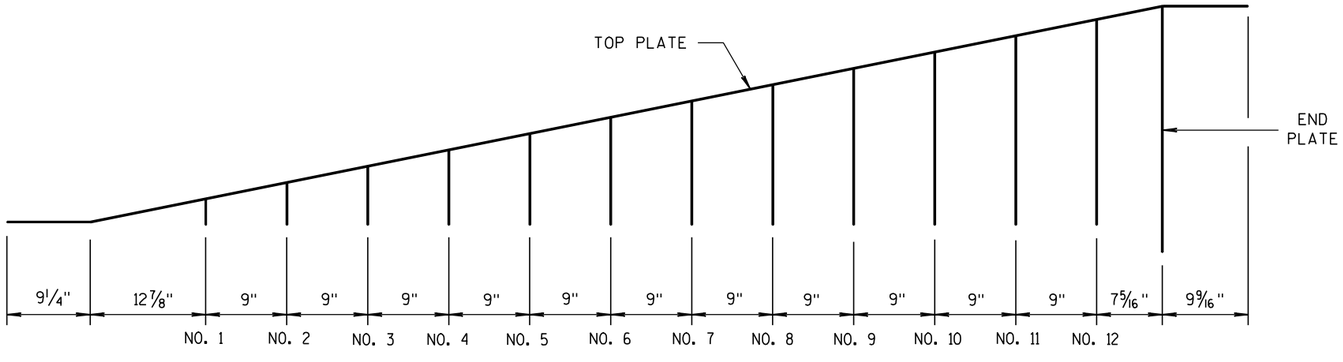
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

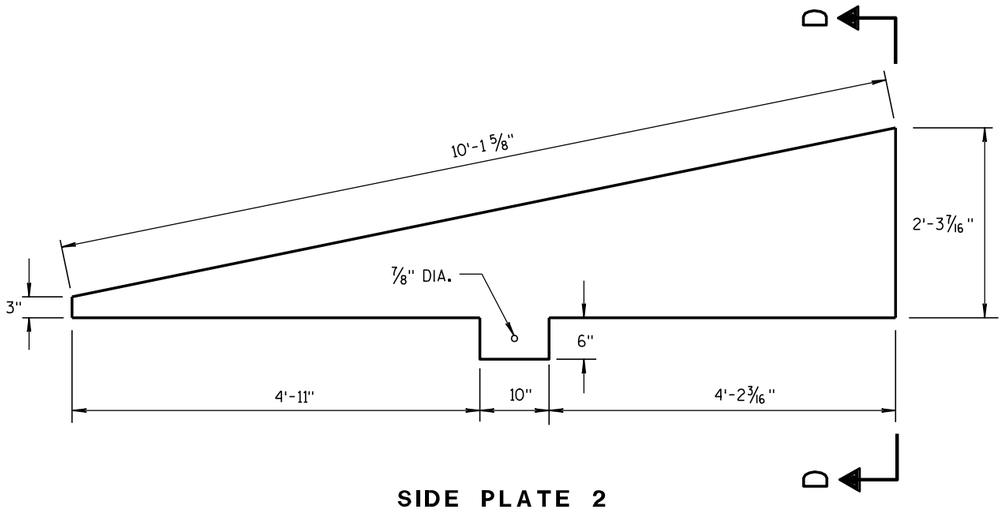
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

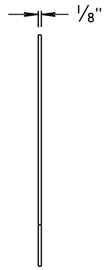
S.D.D. 14 B 7-13g

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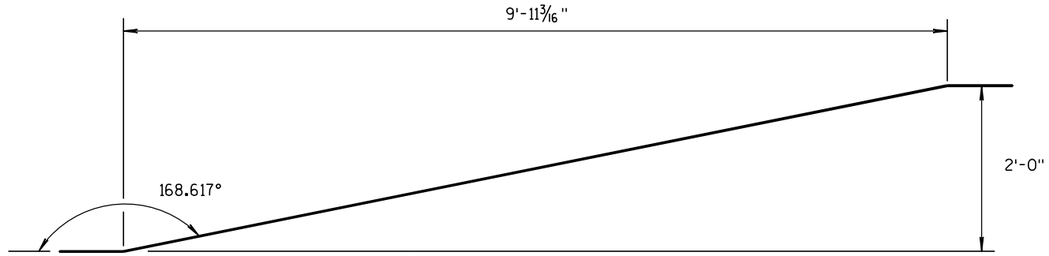
S.D.D. 14 B 7-13g



SIDE PLATE 2

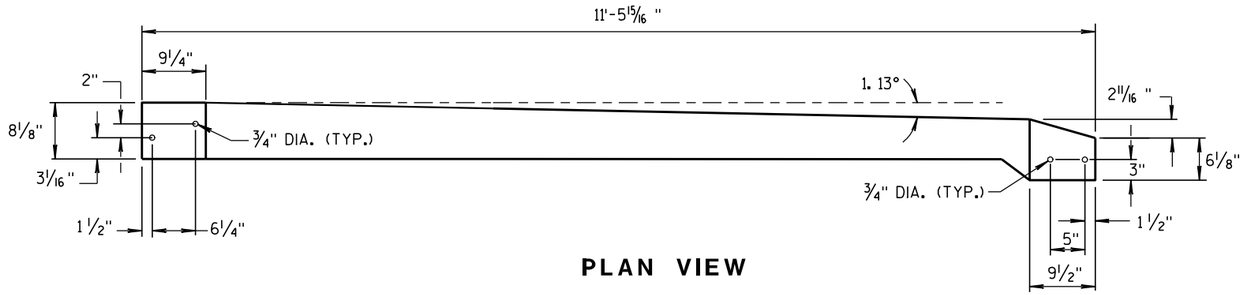


END VIEW



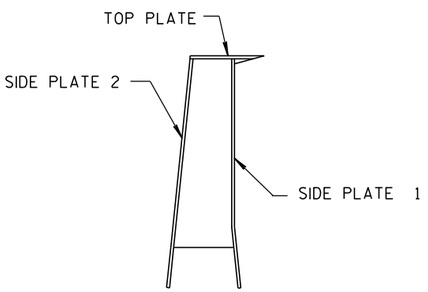
SIDE VIEW

TOP PLATE

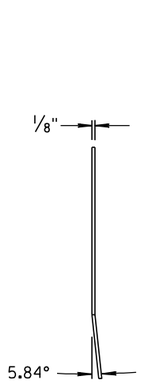


PLAN VIEW

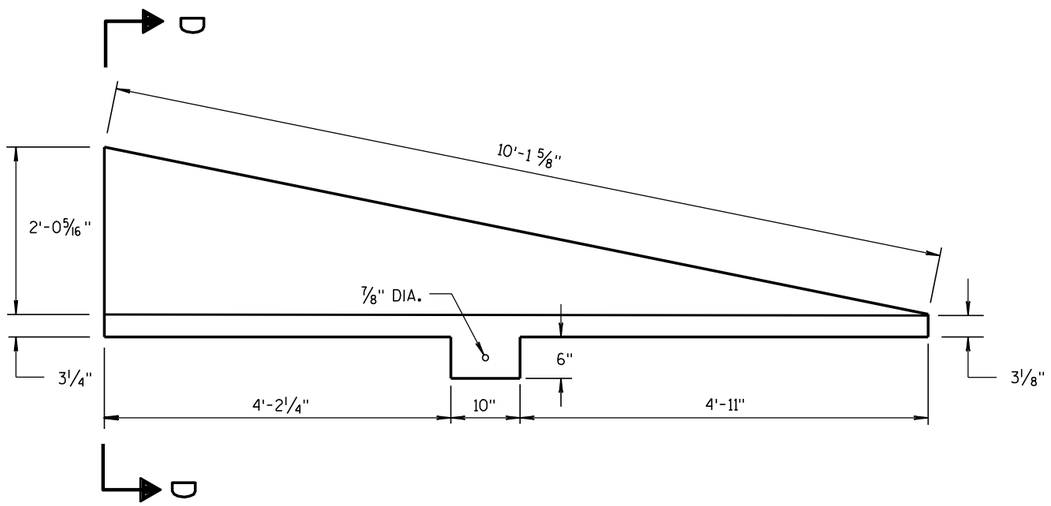
TOP PLATE



SECTION D-D



END VIEW



SIDE PLATE 1

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

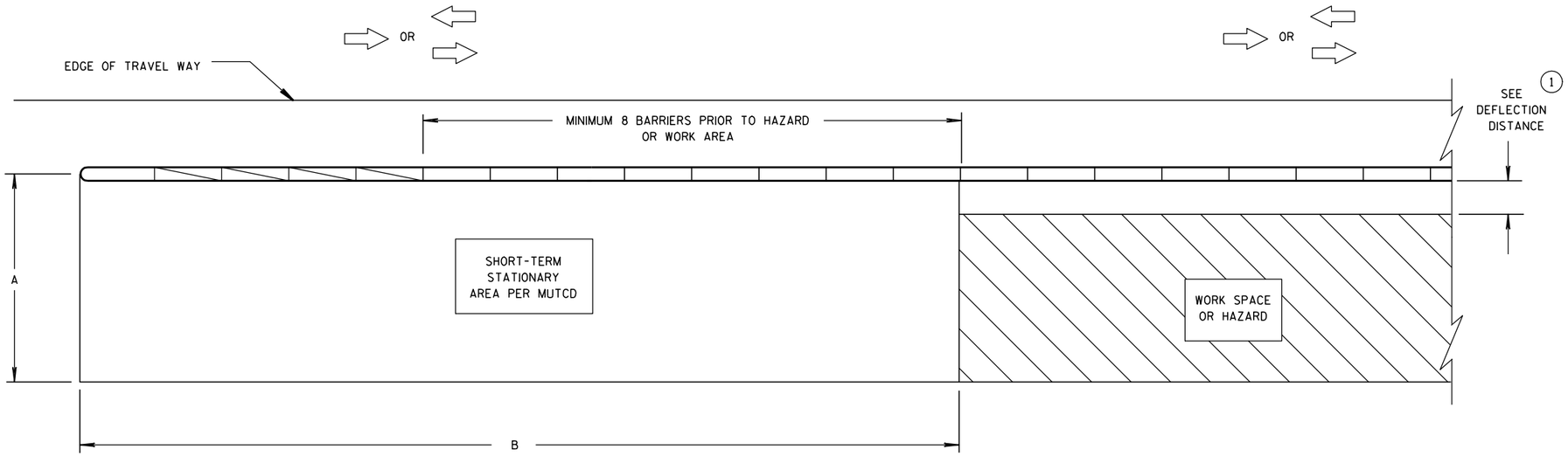
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 8/31/2012 DATE /S/ Jerry H. ROADWAY STANDARDS ENGINEER 407 ENT FHWA

6

S.D.D. 14 B 7-13h

6

S.D.D. 14 B 7-13h



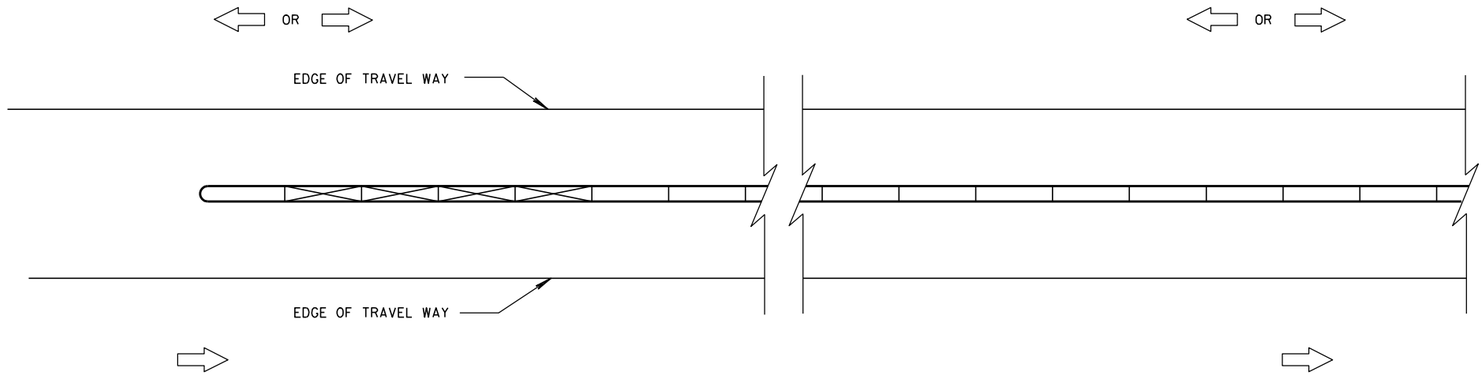
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

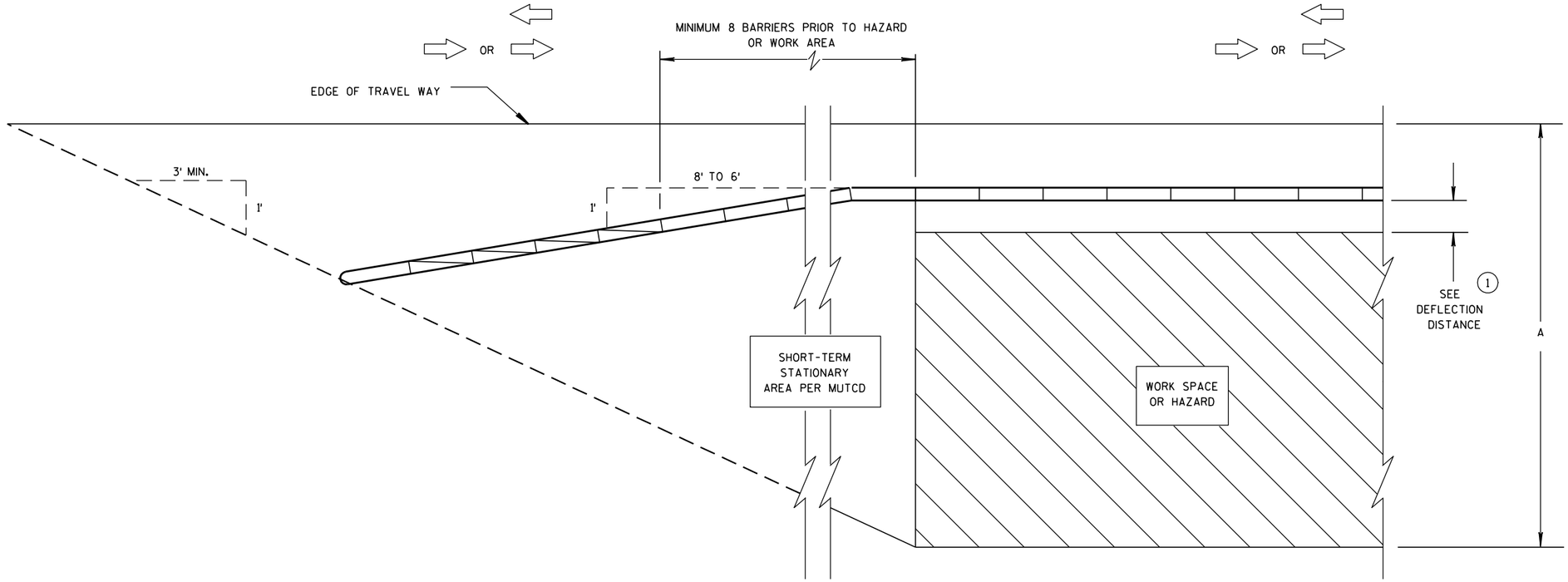
(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

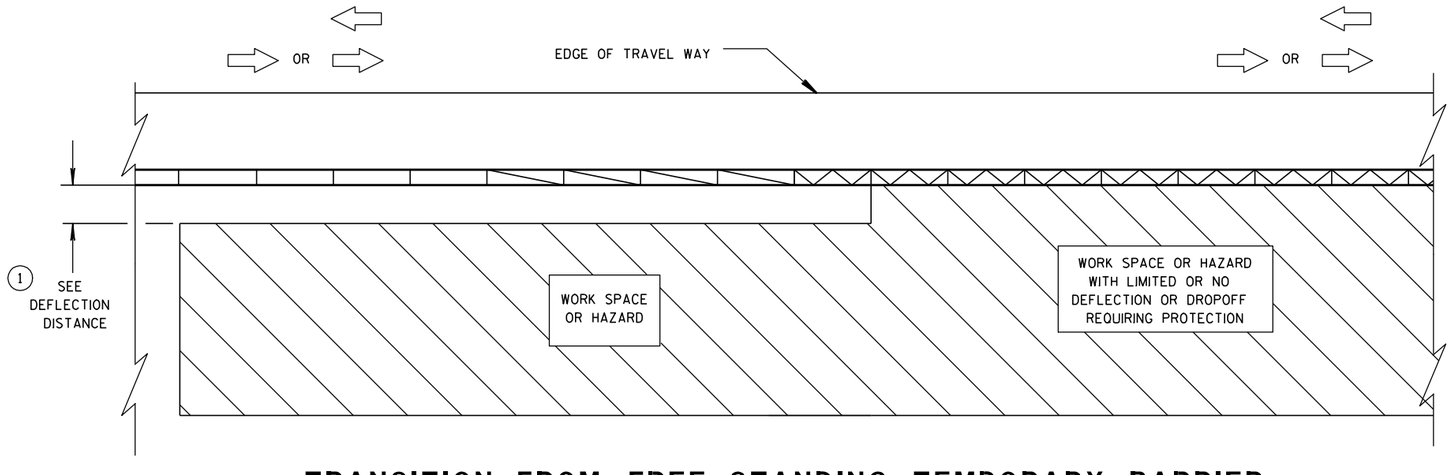
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 8-1a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

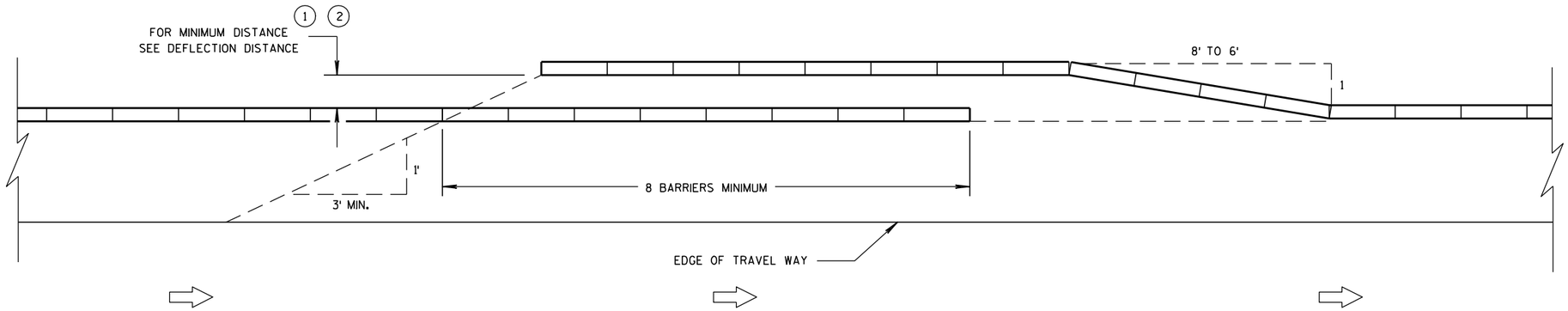
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

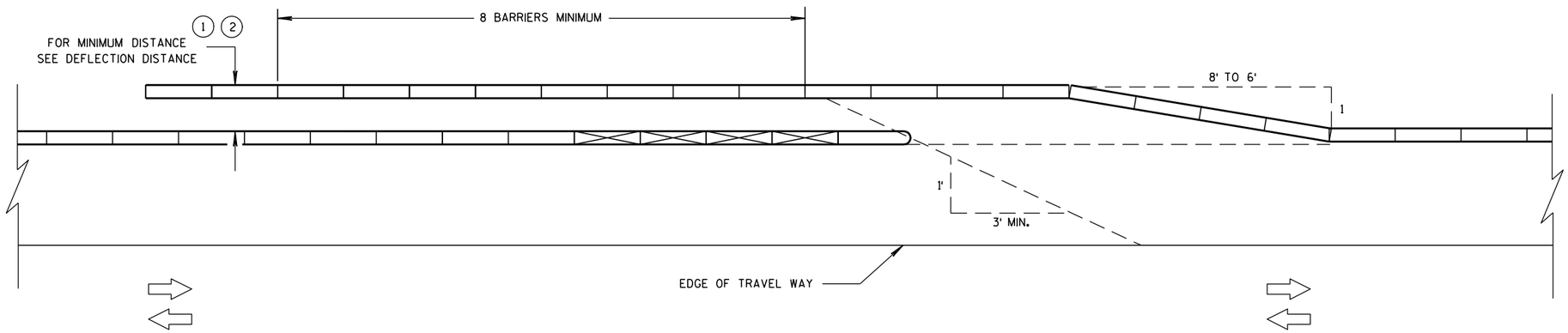
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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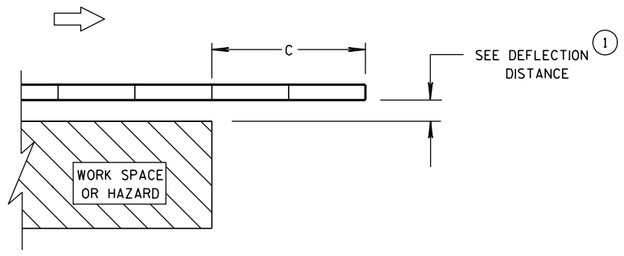
S.D.D. 14 B 8-1b



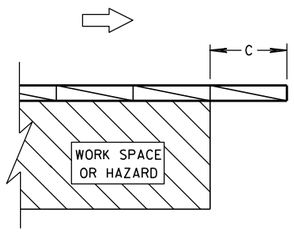
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

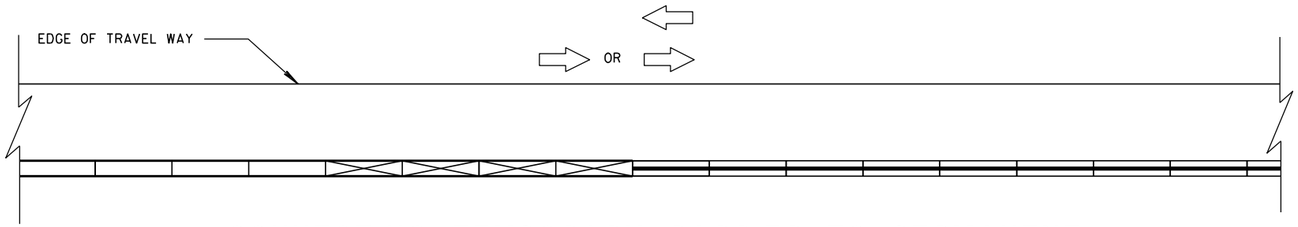
LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

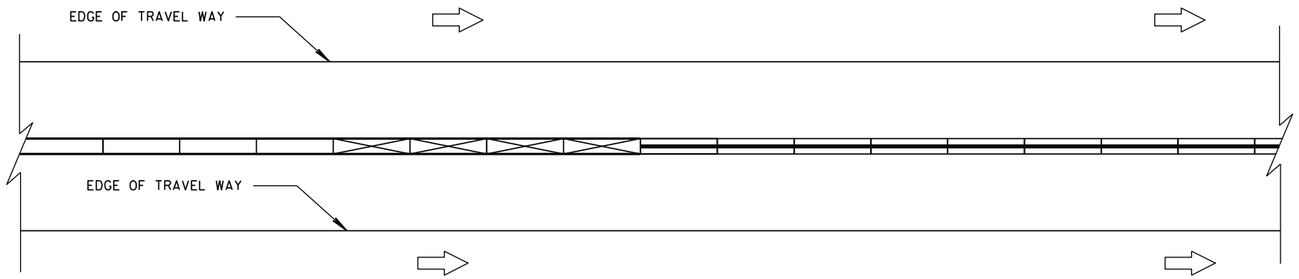
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 8-1c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

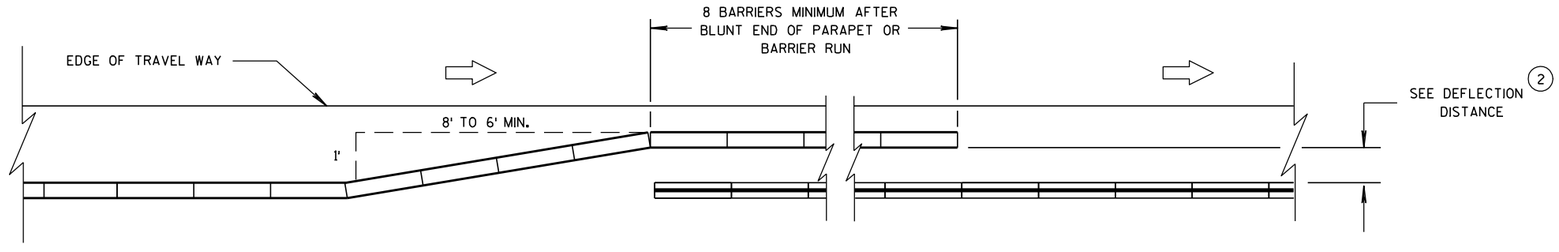
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

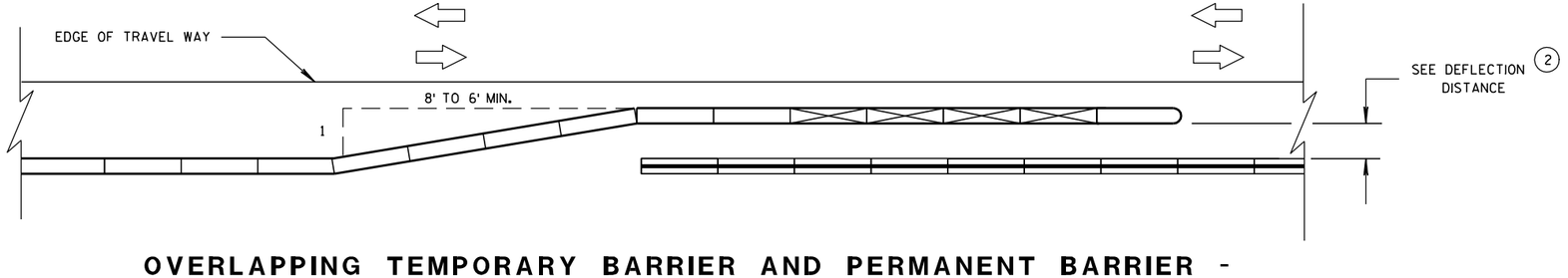
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6
S.D.D. 14 B 8-1d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

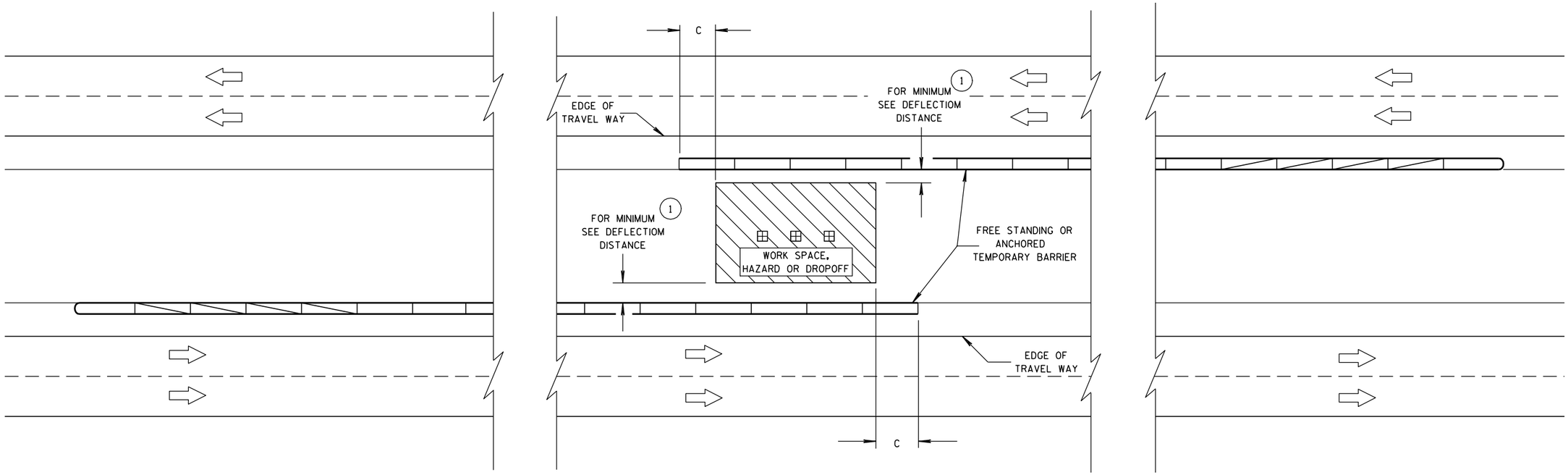
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



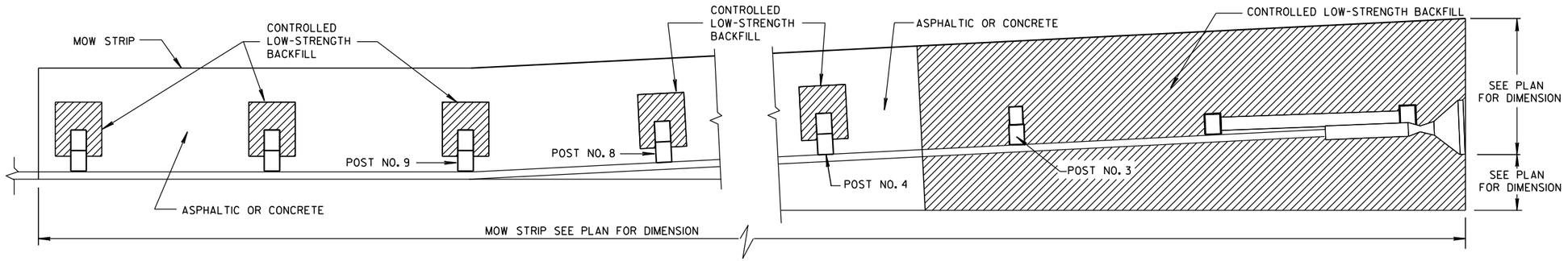
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8/31/2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINNER
FHWA	412

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S.D.D. 14 B 8-1e

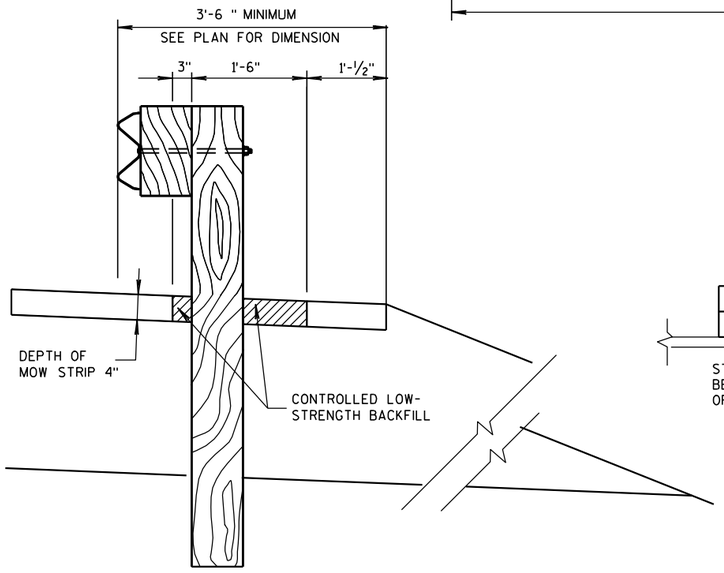
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S.D.D. 14 B 8-1e

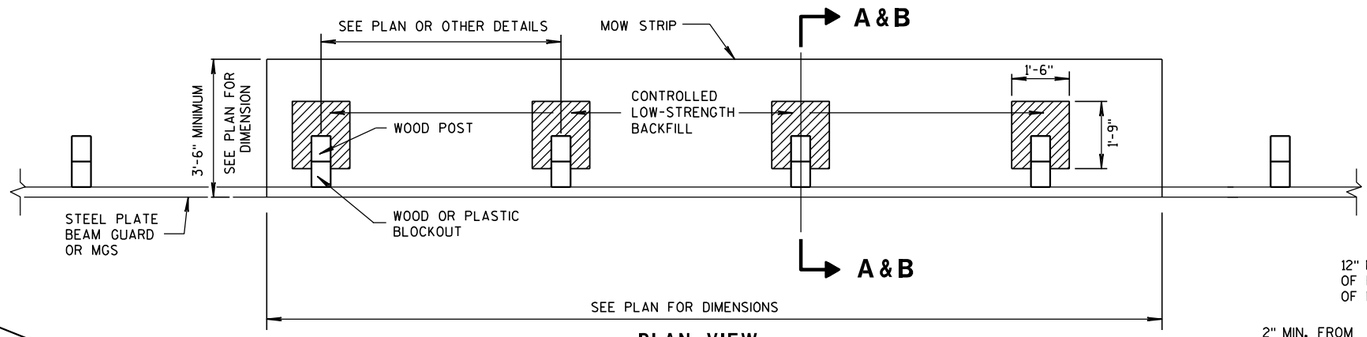


PLAN VIEW

MOW STRIP FOR STEEL PLATE BEAM GUARD ENERGY ABORBING TERMINAL

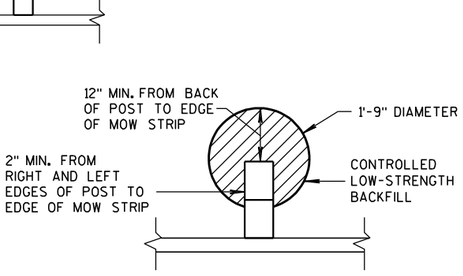


SECTION A-A

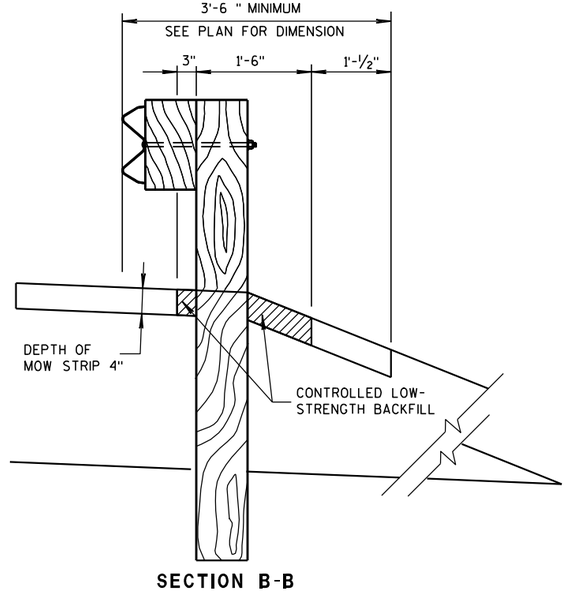


PLAN VIEW

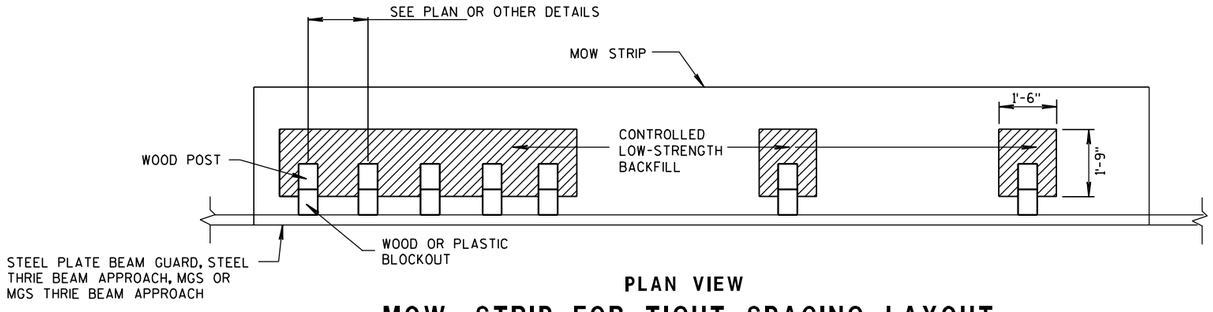
MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT



ALTERNATIVE HMA MOW STRIP DESIGN

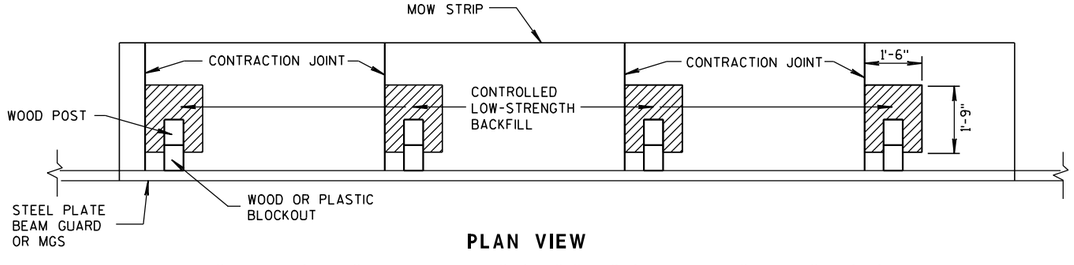


SECTION B-B



PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/27/12
DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS 1413 ENGINEER

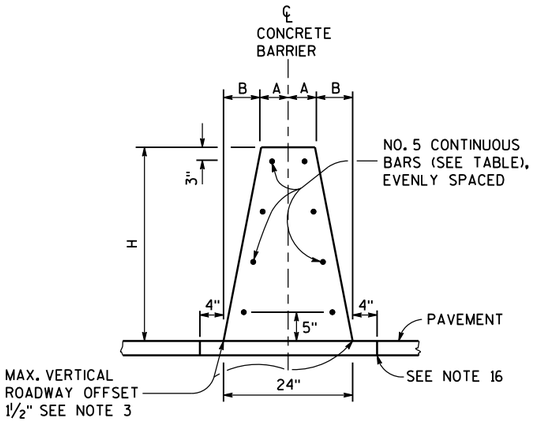
FHWA

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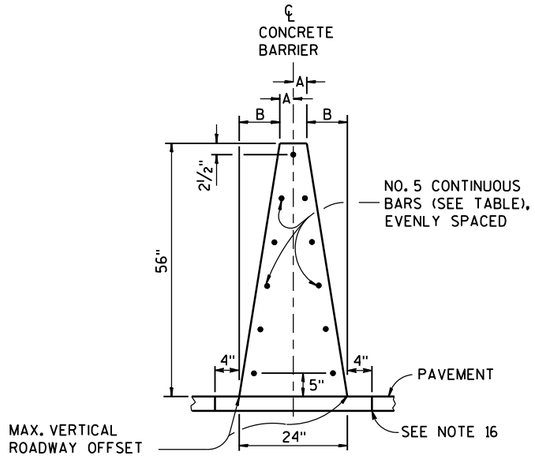
S.D.D. 14 B 28-2

6

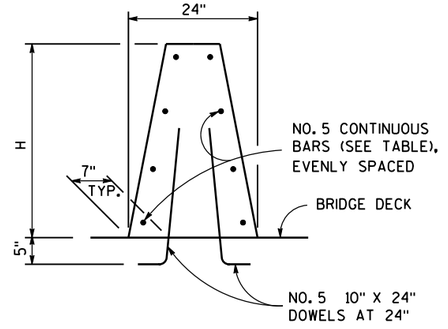
S.D.D. 14 B 28-2



32-INCH, 36-INCH OR 42-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S32, TYPE S36, AND TYPE S42)



56-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S56)



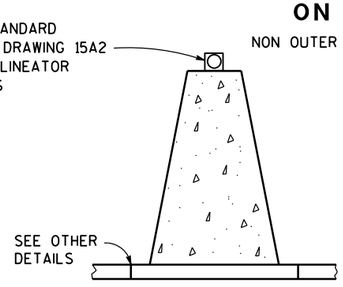
SINGLE SLOPE CONCRETE BARRIER ON BRIDGE

NON OUTER PARAPET APPLICATION

GENERAL NOTES

1. WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
2. EXPANSION JOINTS IN CONCRETE BARRIER SHALL BE LOCATED AT ALL DECK, PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL SHALL BE THE SAME SIZE AS JOINT OR ½" MINIMUM.
3. WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1½", USE TYPE A
4. PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
5. EXCEPT IN ANCHORS, VERTICAL REINFORCING STIRRUP NOT REQUIRED FOR ROADWAY OFFSETS LESS THAN 1'-0".
6. FOR TYPE S32, TYPE S36, TYPE S42, AND S56 MONOLITHIC FOOTING OR DOWELED FOOTING WITH 2-#8 x 8" @ 2'-0".
7. STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL 2 FEET. BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.
8. 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.
9. WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.
10. USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
11. 2" CLEAR COVER TYPICAL.
12. COLD-JOINTS MAY BE USED BETWEEN ANCHOR INSTALLATIONS. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED. LAPS TO BE FIRMLY TIED.
13. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 NO ADDITIONAL VERTICAL STEEL NEEDED. IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A REQUIRES VERTICAL STEEL. SEE OTHER DETAIL.
14. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 DEPTH OF FOOTING 10". IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A MATCH TOTAL HEIGHT OF SINGLE SLOPE BARRIER RETAINING WALL.
15. FOR ALL BARRIER TYPES SHOWN, ANCHOR IS REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN ON DRAWING OR DETAILS SHOWN ON S.D.D. 14B33. ANCHORS INCIDENTAL TO CBSS.
16. CONCRETE PAD UNDER CBSS MAY BE PLACED INTEGRAL WITH BARRIER, PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED FULL DEPTH. SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCERET BARRIER BID ITEM. CONCRETE PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6¼	5¾	8
42	5¼	6¾	10
56	3	9	11



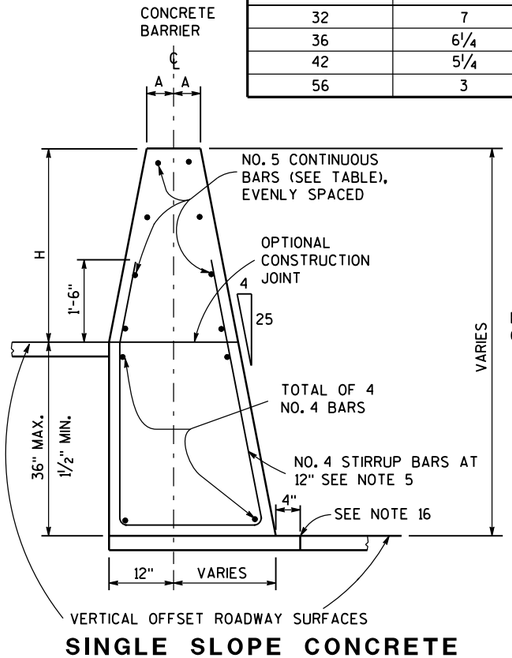
DELINEATION

DELINEATOR SPACING ON HORIZONTAL CURVES

RADIUS OF CURVE	APPROXIMATE SPACING ON CURVE
50 FEET	20 FEET
115 FEET	25 FEET
180 FEET	35 FEET
250 FEET	40 FEET
300 FEET	50 FEET
400 FEET	55 FEET
500 FEET	65 FEET
600 FEET	70 FEET
700 FEET	75 FEET
800 FEET	80 FEET
900 FEET	85 FEET
1000 FEET	90 FEET

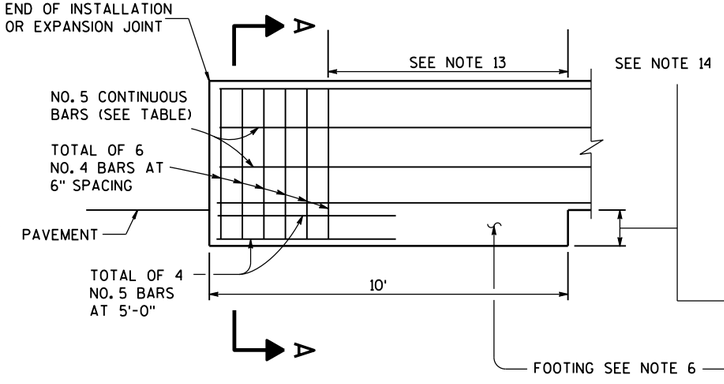
DELINEATOR SPACING ON RADIUS GREATER THAN 1000 FEET OR TANGENT SECTIONS

	LENGTH OF BARRIER	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2	



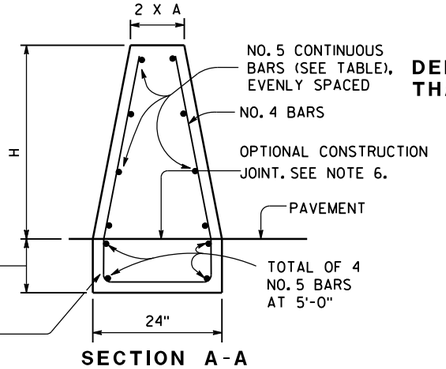
SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL (TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)

(BETWEEN ADJACENT ROADWAYS)



END ANCHOR SINGLE SLOPE CONCRETE BARRIER

AT CONSTRUCTION JOINT

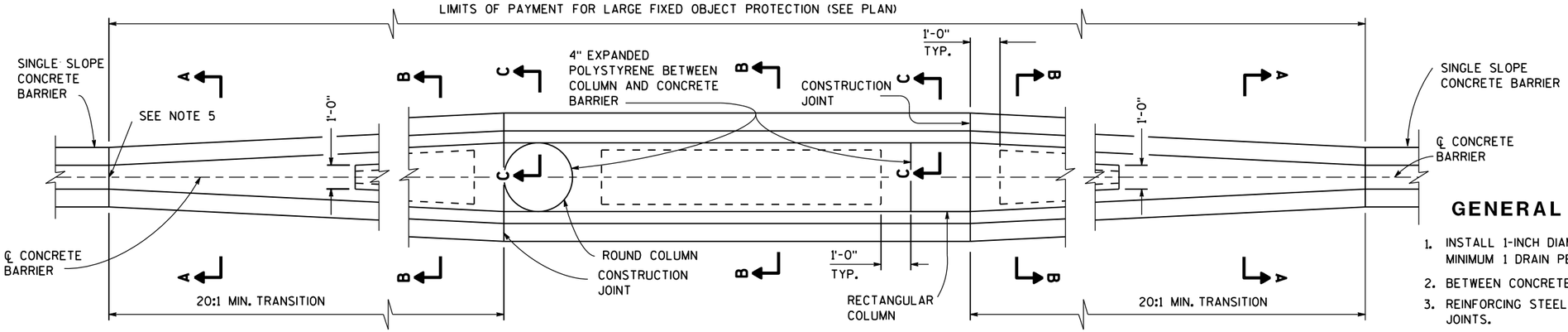


SECTION A-A

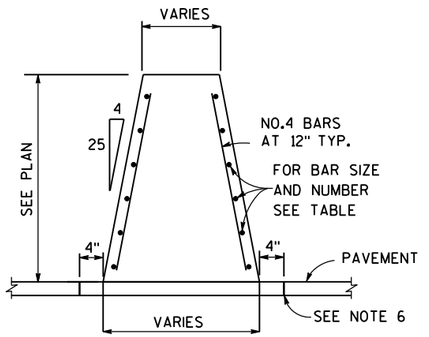
CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

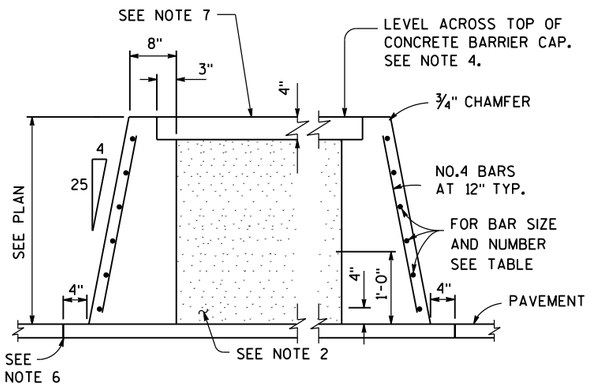
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S.D.D. 14 B 32-2a



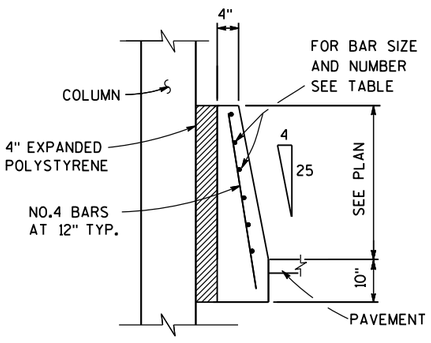
LARGE FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56



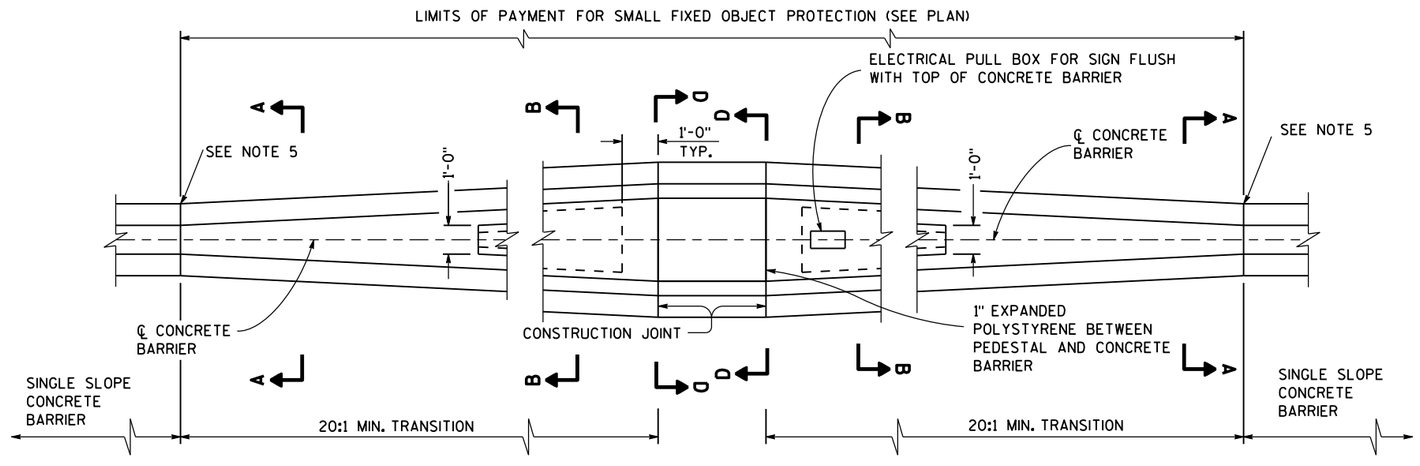
SECTION A-A



SECTION B-B



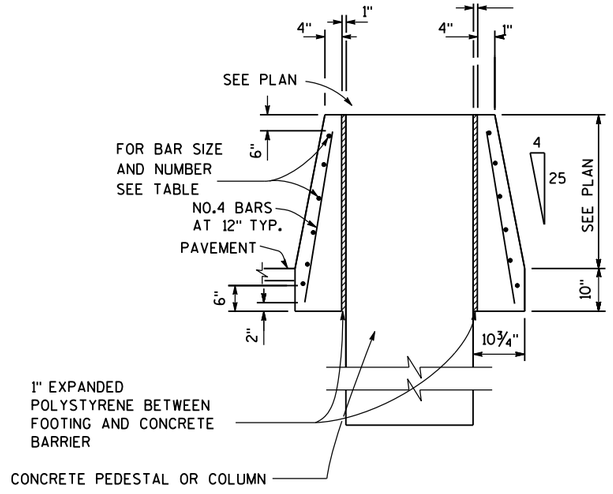
SECTION C-C



SMALL FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56

GENERAL NOTES

1. INSTALL 1-INCH DIAMETER DRAIN PIPE EVERY 20 FEET OF CROSS SECTION B-B. MINIMUM 1 DRAIN PER CAVITY.
2. BETWEEN CONCRETE BARRIER WALLS FILL WITH GRANULAR BACKFILL GRADE 2
3. REINFORCING STEEL SHALL EXTEND CONTINUOUS THROUGH CONSTRUCTION JOINTS.
4. ADJUST HEIGHT OF CONCRETE BARRIER WALL ON LOW SIDE OF OFFSET OR SUPERELEVATED ROADWAYS TO PROVIDE LEVEL GRADE ACROSS TOP OF CONCRETE CAP.
5. IF FIXED OBJECT PROTECTION IS INSTALLED FIRST, USE COLD JOINTS. IF CBSS PLACED FIRST, USE EXPANSION JOINT.
6. CONCRETE PAD UNDER CBSS MAY BE PLACED INTEGRAL WITH BARRIER, PLACED SEPARATELY OR PLACED WITH CONCRETE SHOULDER AND SAWED FULL DEPTH. SAWING OF CONCRETE SHOULDER IS INCIDENTAL TO CONCRETE BARRIER BID ITEM. CONCRETE PAD MINIMUM DEPTH IS 6 INCHES, OR EQUAL TO THE DEPTH OF THE CONCRETE SHOULDER.
7. USE NO. 3 BAR SPACED 12 INCHES CENTER TO CENTER (PLACED IN EACH DIRECTION) OR EQUIVALENT WIRE MESH.



SECTION D-D

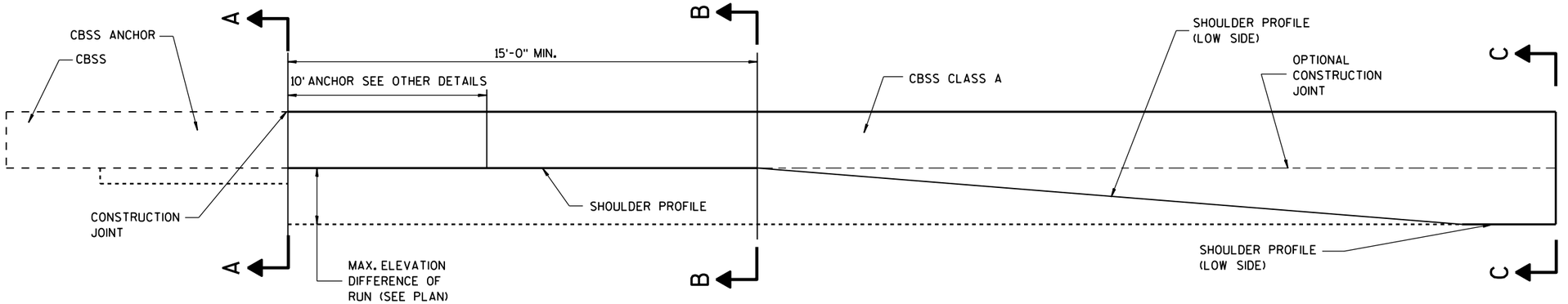
BARRIER HEIGHT H INCHES	BAR SIZE	NUMBER OF BARS EACH
32	4	6
36	4	6
42	5	6
56	5	9

CONCRETE BARRIER SINGLE SLOPE (CBSS)

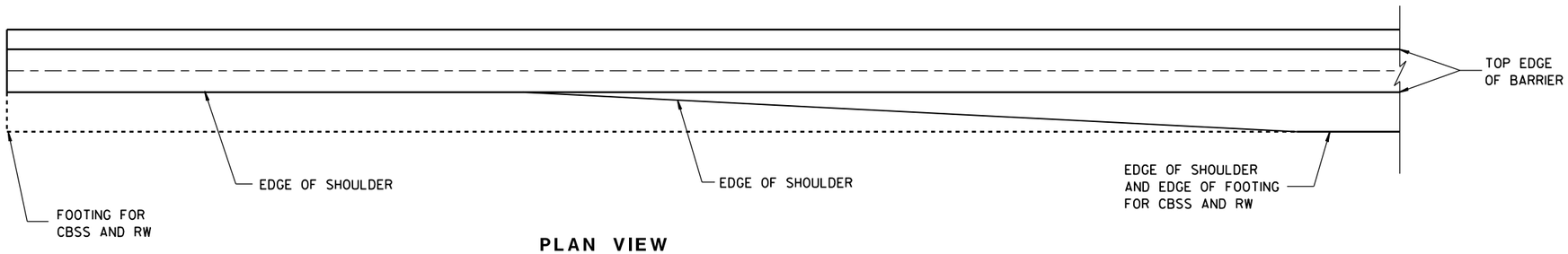
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

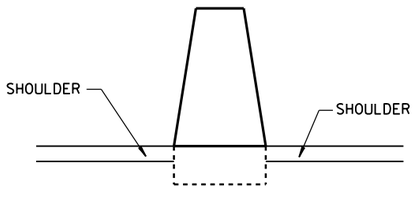
S.D.D. 14 B 32-2b



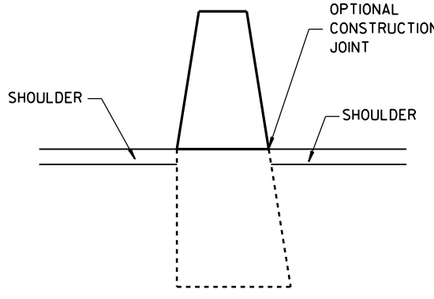
ELEVATION VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



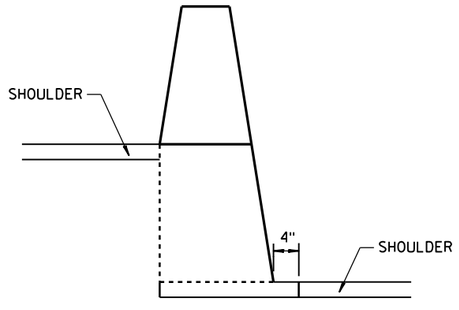
PLAN VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



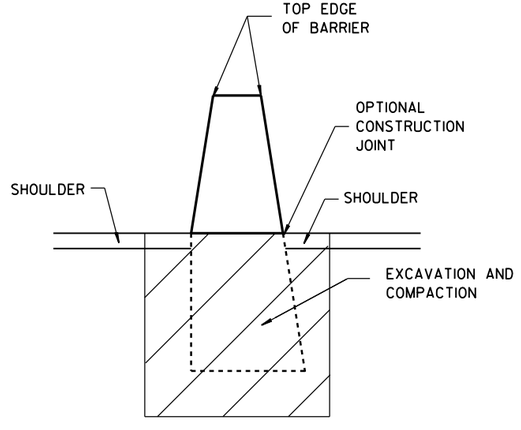
SECTION A-A



SECTION B-B



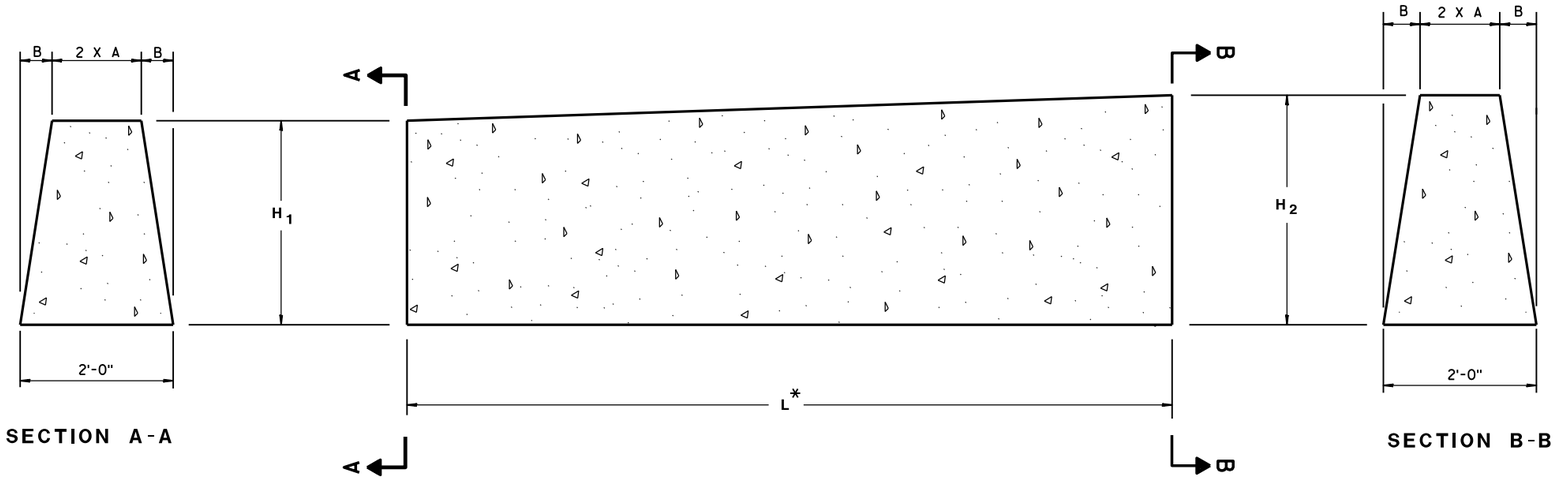
SECTION C-C



CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 32-2c



SECTION A-A

SECTION B-B

DOUBLE COLD JOINT HEIGHT TRANSITION

BARRIER DIMENSIONS

BARRIER HEIGHT INCHES	A INCHES	B INCHES
32	7	5
36	6 1/4	5 3/4
42	5 1/4	6 3/4
56	3	9

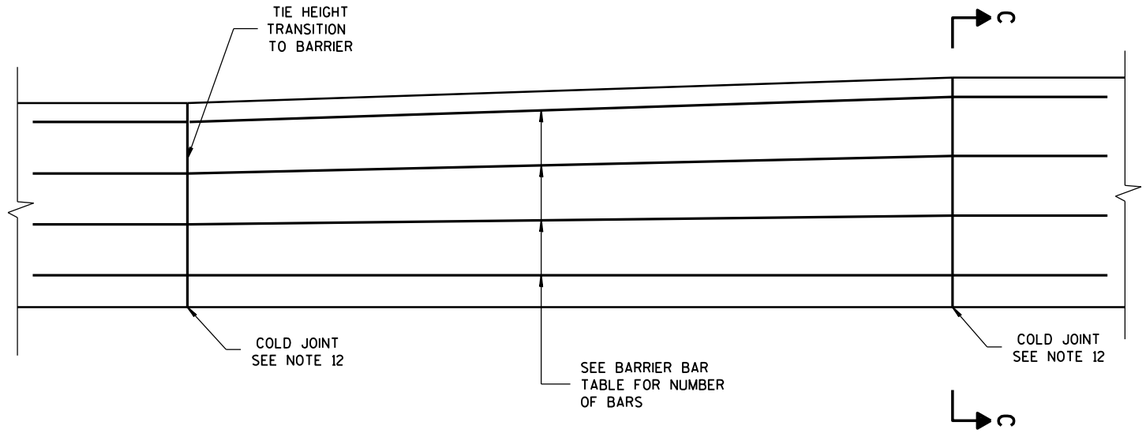
MULTIPLE HEIGHT TRANSITIONS MAY BE USED IN SEQUENCE TO GET TO APPROPRIATE HEIGHT.

USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.

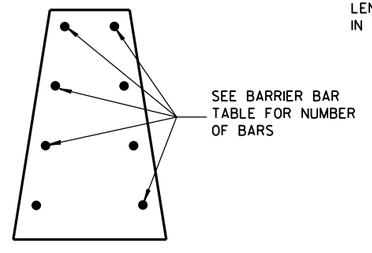
BARRIER BARS

H_1	H_2	L*	NUMBER OF NO. 5 BARS
32"	36"	10'-0"	8
36"	42"	10'-6"	10
42"	56"	24'-6"	11

* LENGTH OF DOUBLE COLD JOINT INCLUDED IN THE TOTAL LENGTH OF CBSS.



STEEL REINFORCEMENT DETAIL



SECTION C-C

CONCRETE BARRIER SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-10-2013 DATE

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

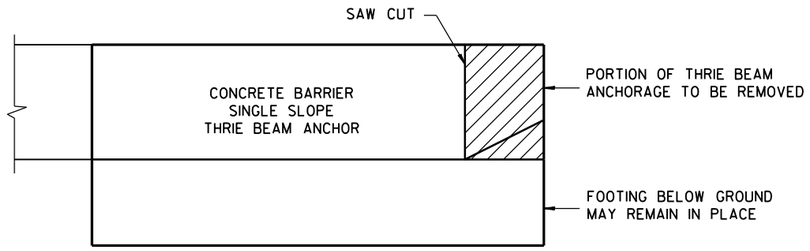
FHWA

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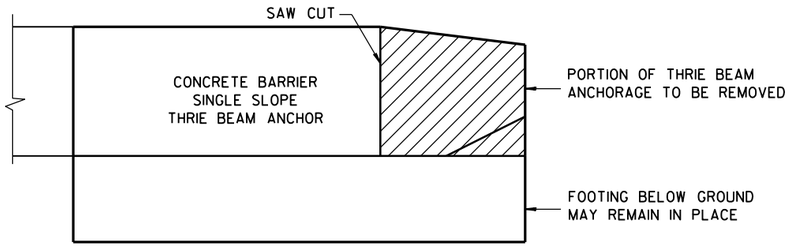
S.D.D. 14 B 32-2d

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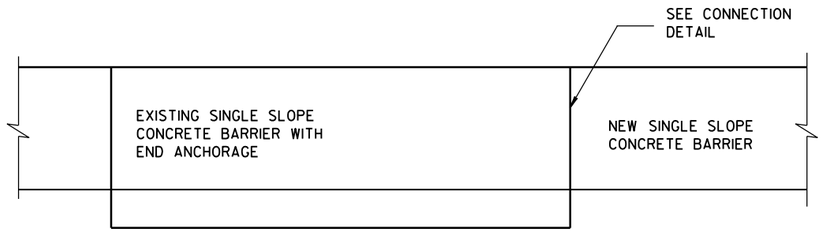
S.D.D. 14 B 32-2d



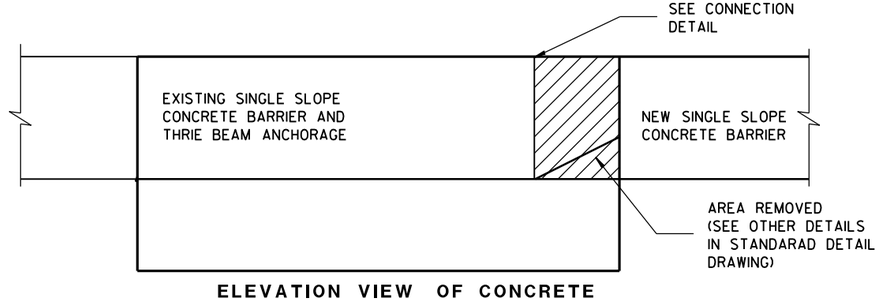
REMOVAL AREA OF
32" CONCRETE THRIE BEAM ANCHORAGE



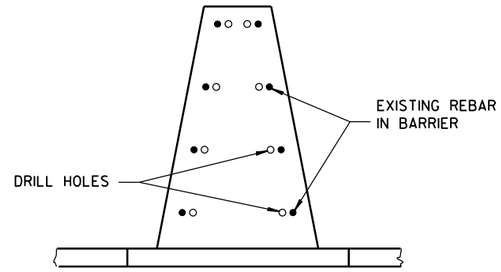
REMOVAL AREA OF CONCRETE THRIE BEAM
ANCHORAGE WITH HEIGHT GREATER THAN 32"



ELEVATION VIEW OF CONCRETE
BARRIER EXTENSION NEAR END ANCHORAGE



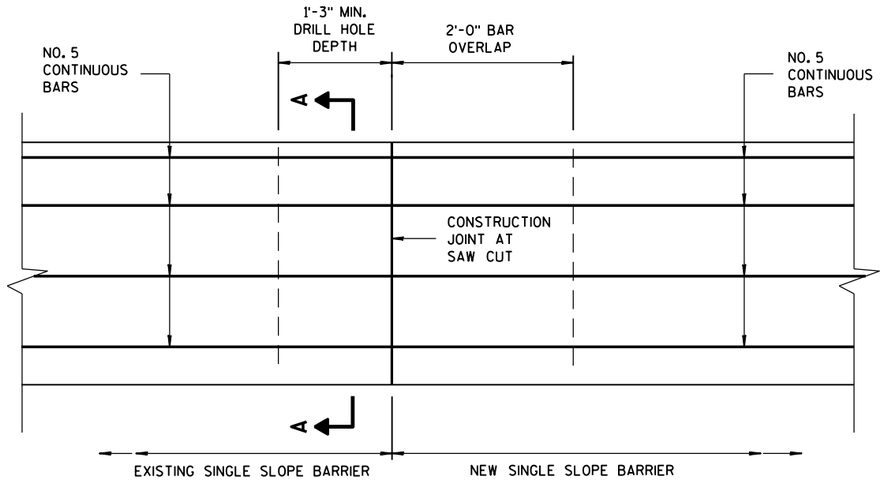
ELEVATION VIEW OF CONCRETE
BARRIER EXTENSION NEAR THRIE BEAM TERMINAL



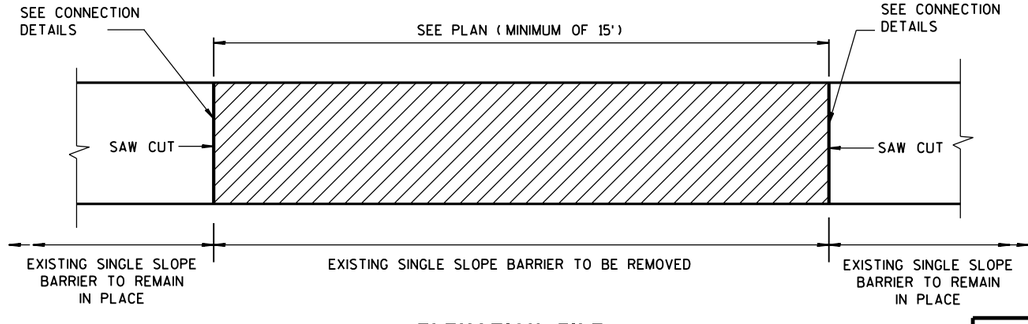
SECTION A-A

GENERAL NOTES

1. THE NUMBER OF DRILL HOLES IS EQUAL TO THE NUMBER OF REBAR IN BARRIER (SEE OTHER DETAILS).
2. MINIMUM DEPTH OF DRILL HOLES IS 1'-3".
3. DRILL HOLES TO BE A MINIMUM OF 4 INCHES FROM THE EDGE OF CONCRETE.
4. INSTALL EPOXY COATED NO. 5 BARS IN DRILL HOLES.
5. END ANCHORAGE MAY OR MAY NOT BE PRESENT ON EXISTING BARRIER.
6. REMOVE THRIE BEAM ANCHORAGE AS SHOWN.
7. ALL ITEMS INCLUDED WITH CONCRETE BARRIER ITEMS EXCEPT FOR REMOVAL.



CONNECTION OF EXISTING SINGLE SLOPE CONCRETE BARRIER TO
NEW SINGLE SLOPE CONCRETE BARRIER



ELEVATION FILE
BARRIER REMOVAL AND REPLACEMENT

RETROFIT OR REPAIR SINGLE SLOPE CONCRETE BARRIER

CONCRETE BARRIER
SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

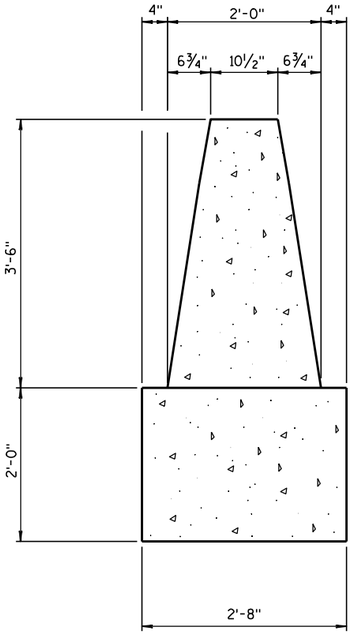
APPROVED
5-10-2013 DATE
/S/ Jerry H. Zoaa
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

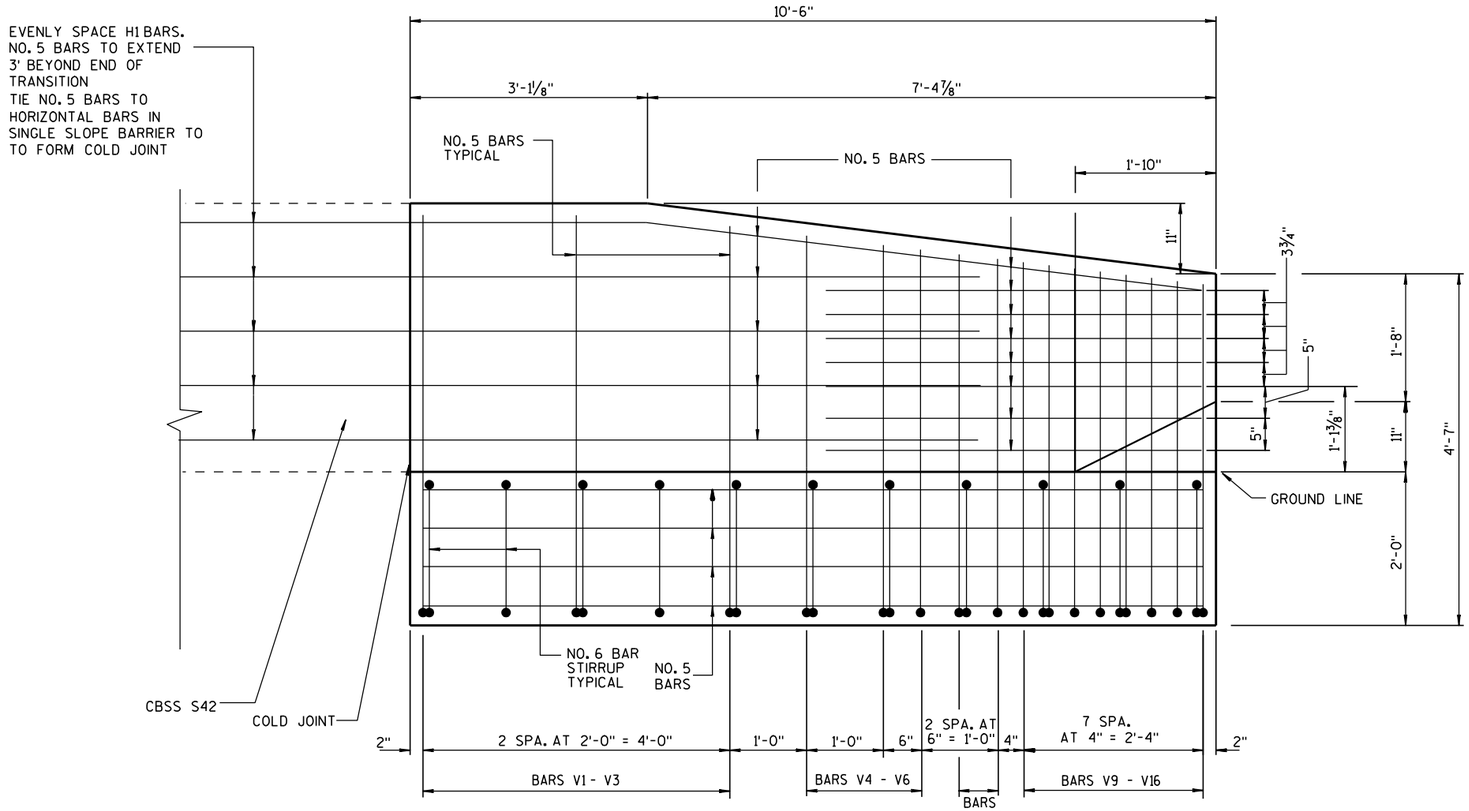
S.D.D. 14 B 32-2e

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S.D.D. 14 B 32-2e

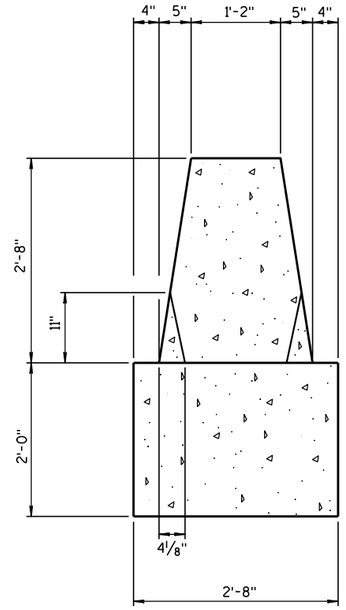


SECTION A-A

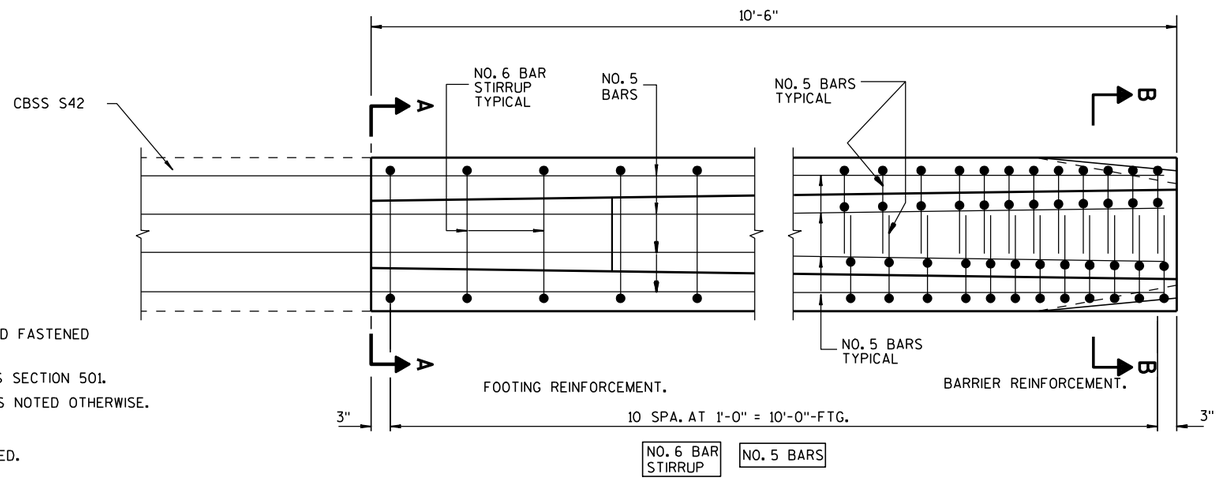


SEE SECTIONS ① THRU ⑯

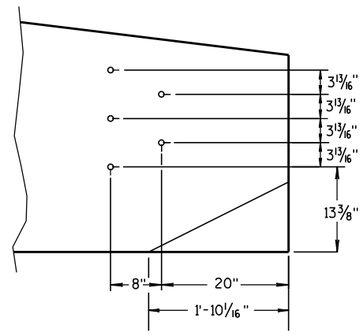
ELEVATION VIEW



SECTION B-B



PLAN VIEW



PVC PIPE LOCATIONS

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2'LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THRIE BEAM ANCHOR INCIDENTAL TO CONCRETE BARRIER ITEM.

INSTALL SCHEDULE 40 PVC PIPE 1" DIAMETER AT LOCATIONS INDICATED.

EXTEND PVC PIPE COMPLETELY THROUGH BARRIER.

CUT ENDS OF PVC PIPE FLUSH WITH FINISHED FACE of BARRIER.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

CONCRETE BARRIER SINGLE SLOPE 42" THRIE BEAM ANCHOR

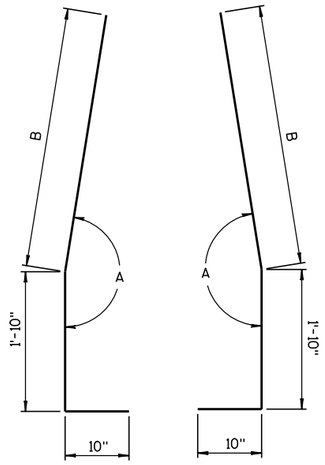
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 33-1g

BAR CHART
SECTIONS V1 - V11

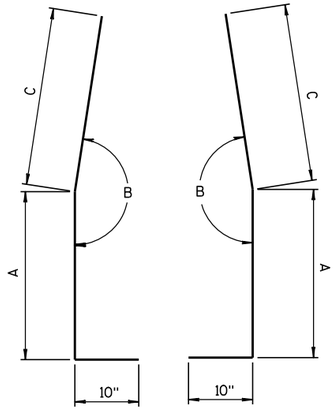
BAR	A	B
V1	170°-50'	3'-4½"
V2	171°-20'	3'-4½"
V3	171°-30'	3'-2½"
V4	171°-25'	3'-1½"
V5	171°-15'	3'-0"
V6	171°-15'	2'-11"
V7	171°-20'	2'-10½"
V8	171°-10'	2'-9½"
V9	171°-10'	2'-9"
V10	171°-05'	2'-8½"
V11	171°-10'	2'-8"



BAR BENDING DETAIL
FOR BARS V1 - V11

BAR CHART
SECTIONS V12 - V13

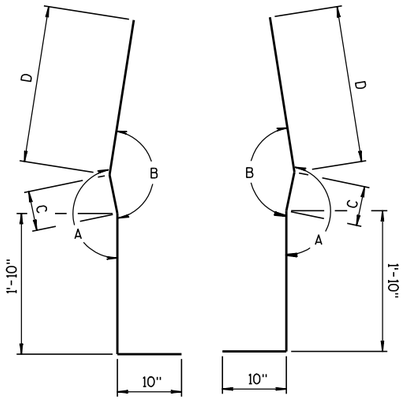
BAR	A	B	C
V12	2'-2"	171°-15'	2'-3½"
V13	2'-7"	171°-05'	1'-10"



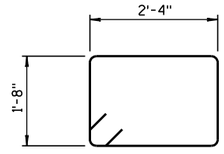
BAR BENDING DETAIL
FOR BARS V12 - V13

BAR CHART
SECTIONS V14 - V16

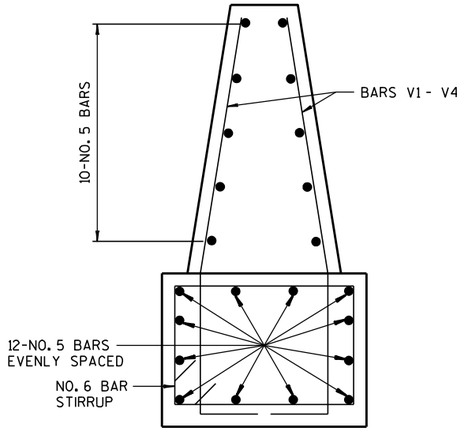
BAR	A	B	C	D
V14	168°-15'	159°-15'	6"	2'-0"
V15	169°-20'	161°-00'	8"	1'-10"
V16	168°-40'	160°-10'	10"	1'-8"



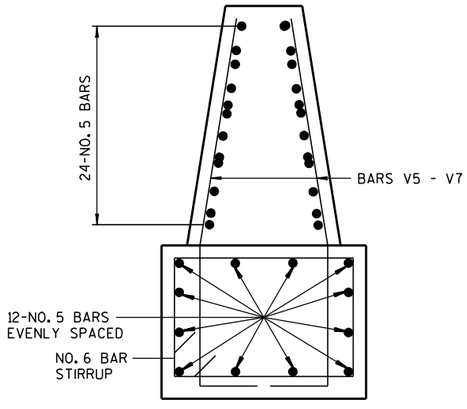
BAR BENDING DETAIL
FOR BARS V14 - V16



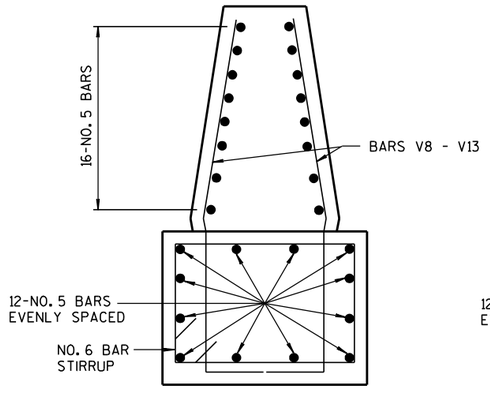
STIRRUP BAR
BENDING DETAIL



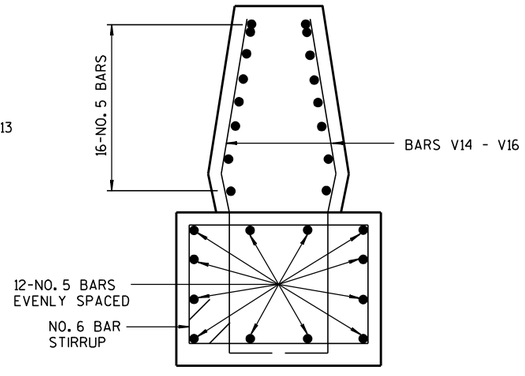
BAR DETAIL
SECTIONS V1 - V4



BAR DETAIL
SECTIONS V5 - V7



BAR DETAIL
SECTIONS V8 - V13



BAR DETAIL
SECTIONS V14 - V16

CONCRETE BARRIER
SINGLE SLOPE 42"
THRIE BEAM ANCHOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6-3-2010 DATE
/S/ Jerry H. Z---
ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 14 B 33-1h

GENERAL NOTES

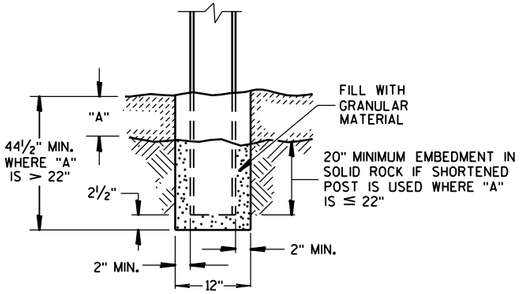
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

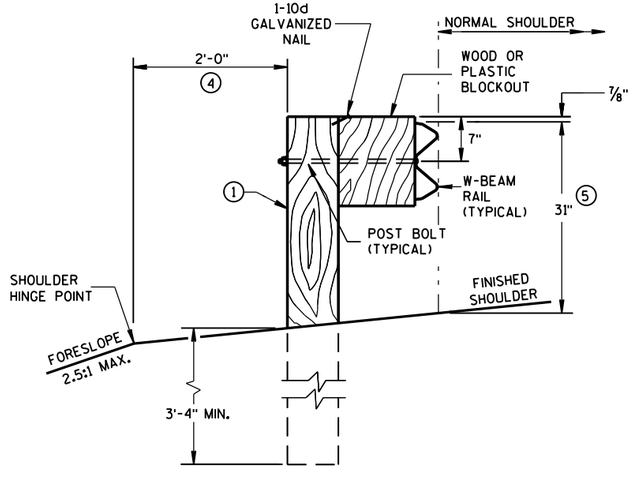
3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

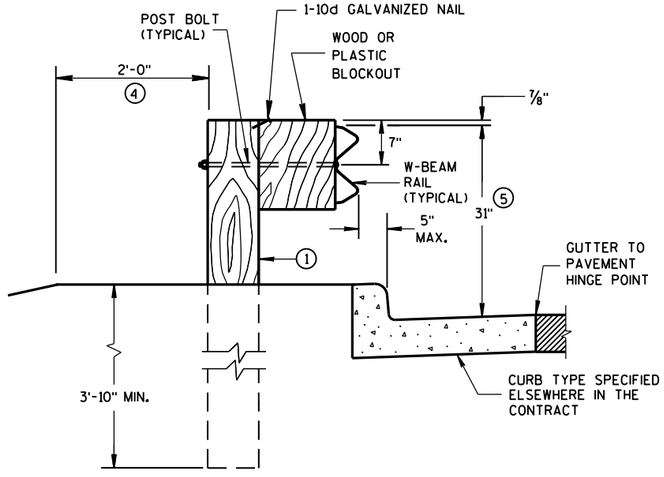


END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



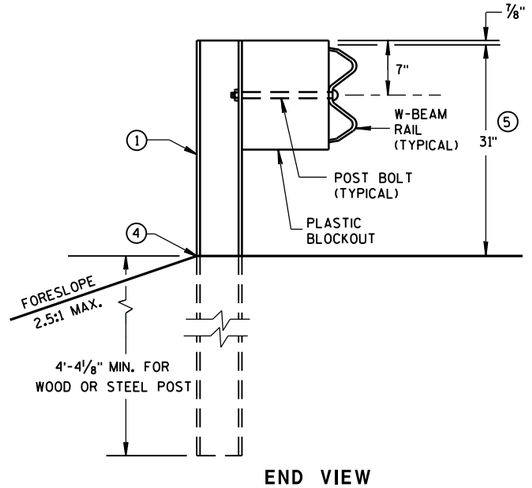
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



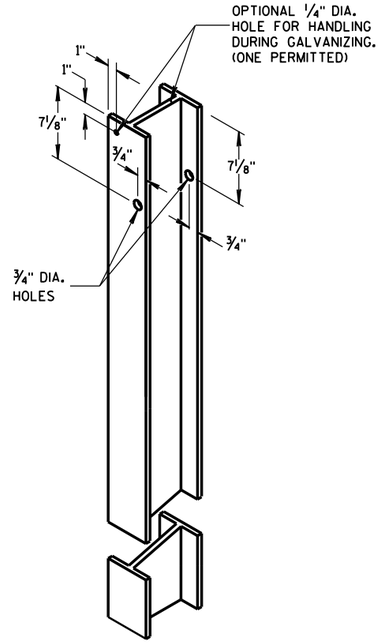
END VIEW

LOCATED ALONG A CURBED ROADWAY

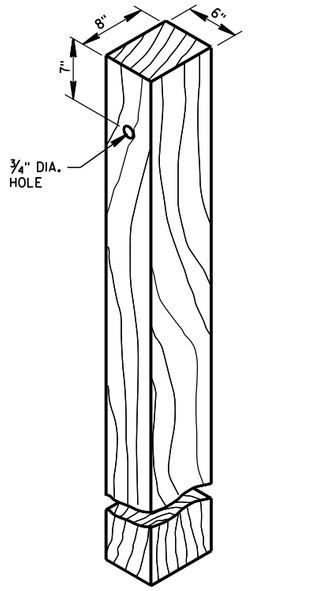


END VIEW

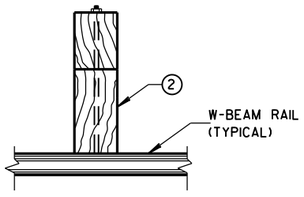
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



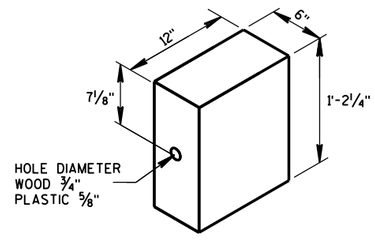
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



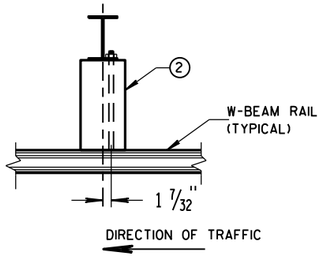
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

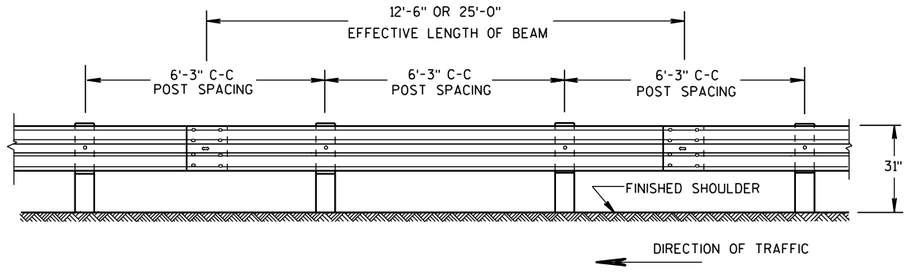


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

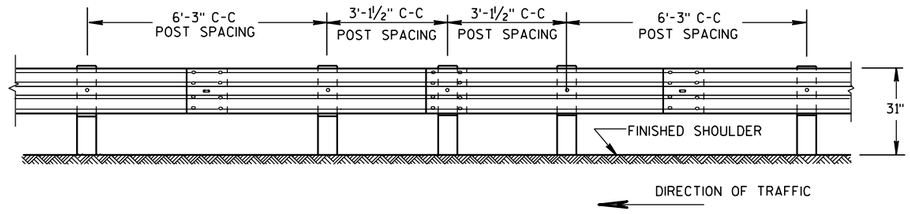
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 42-2a



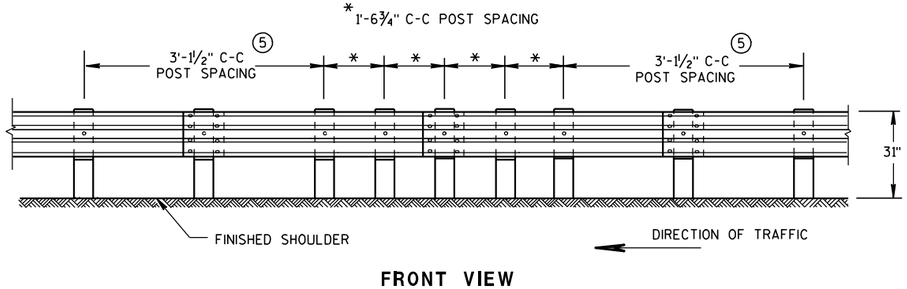
FRONT VIEW

POST SPACING STANDARD INSTALLATION



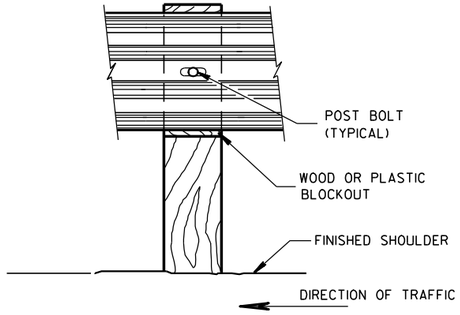
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

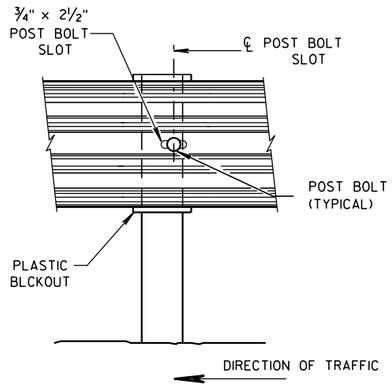


FRONT VIEW

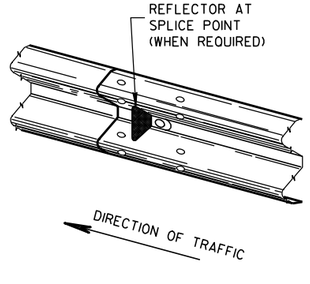
QUARTER POST SPACING (QS)

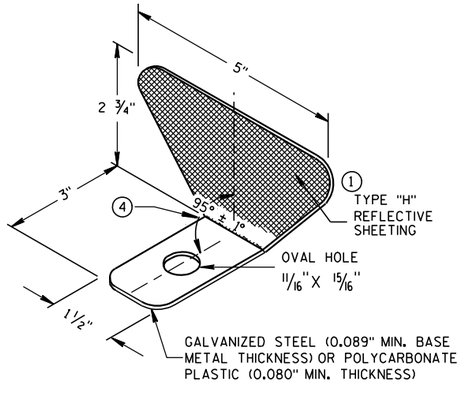


FRONT VIEW AT WOOD POST

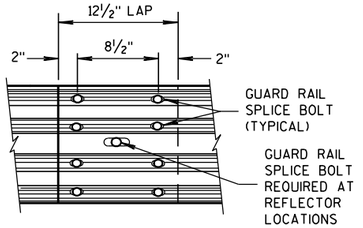


FRONT VIEW AT STEEL POST



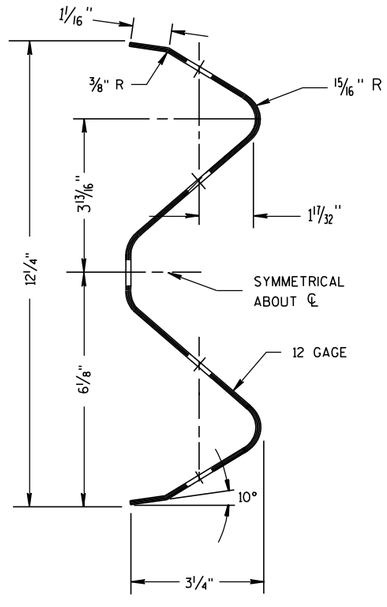


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①



FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL

GENERAL NOTES

① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.

② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

④ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑤ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ②

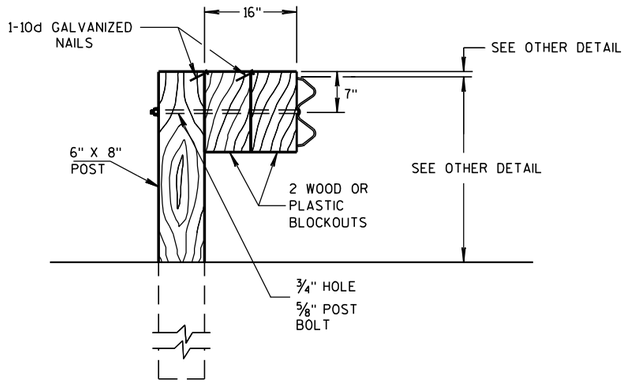
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ③ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 ④ 2	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

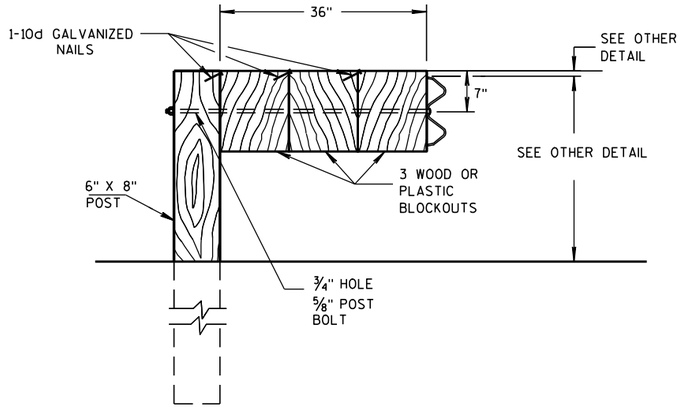
S.D.D. 14 B 42-2b

S.D.D. 14 B 42-2b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

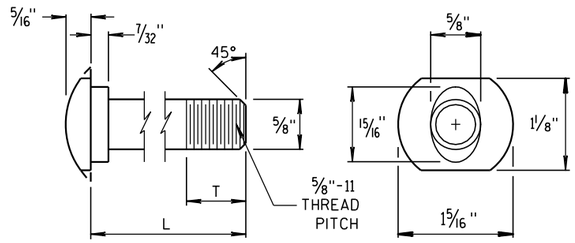


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

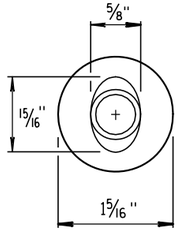
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

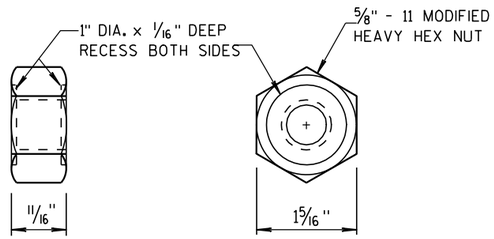


POST BOLT TABLE

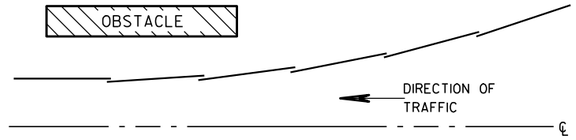
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

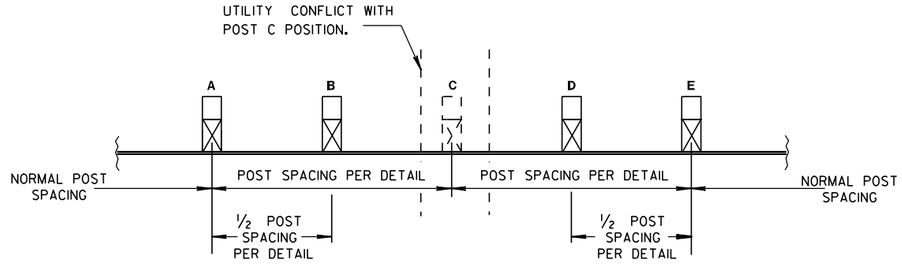


POST BOLT AND RECESS NUT

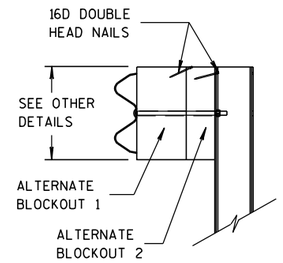


PLAN VIEW

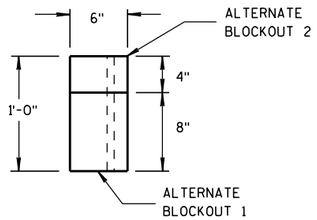
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

ENT

6

S.D.D. 14 B 42-2c

6

S.D.D. 14 B 42-2c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

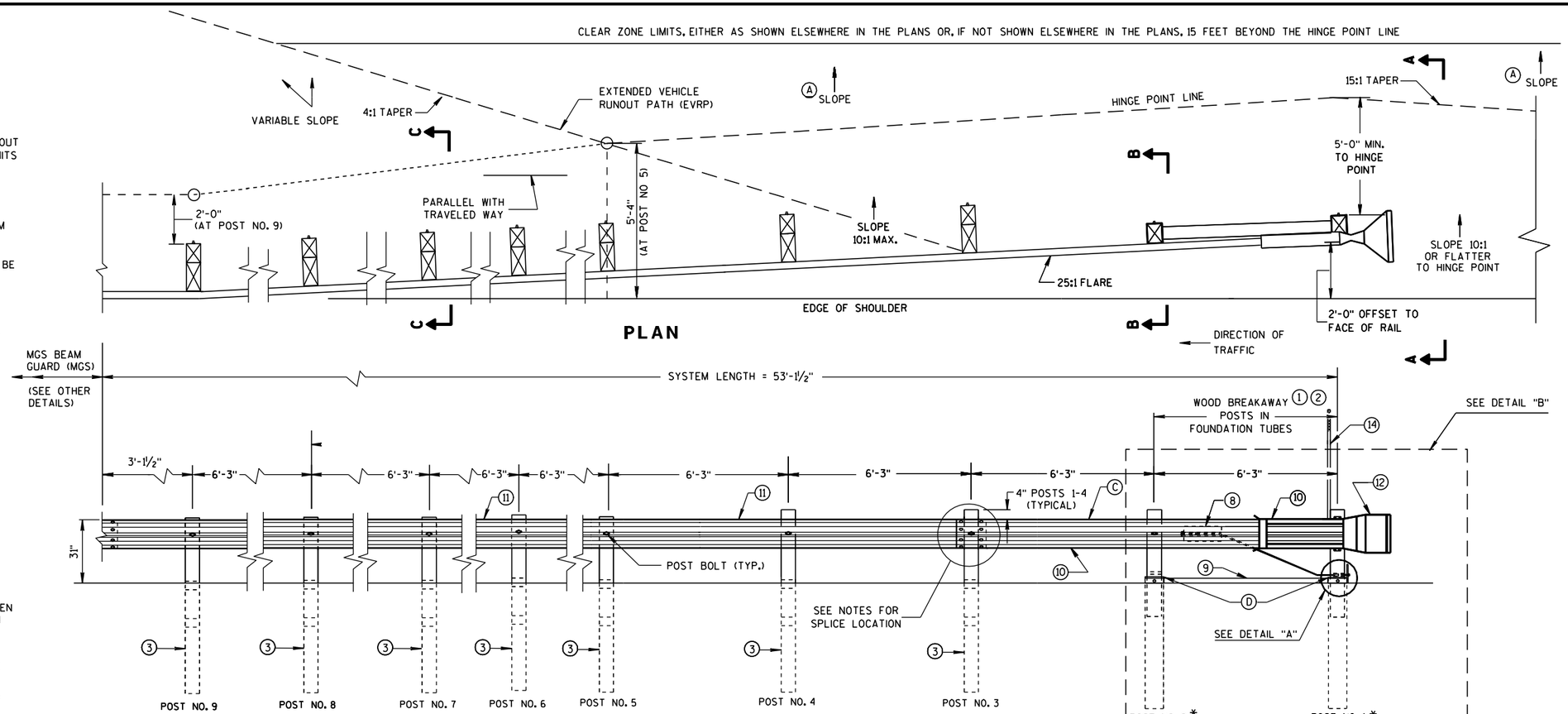
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

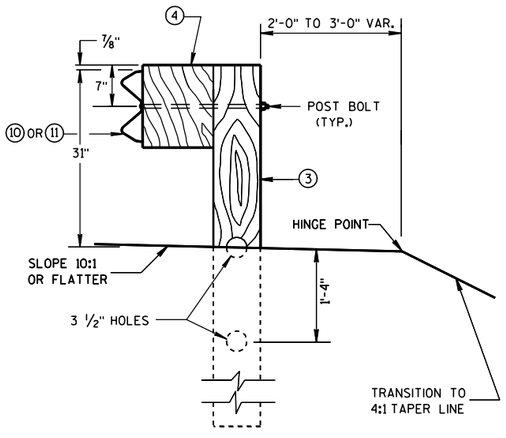
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

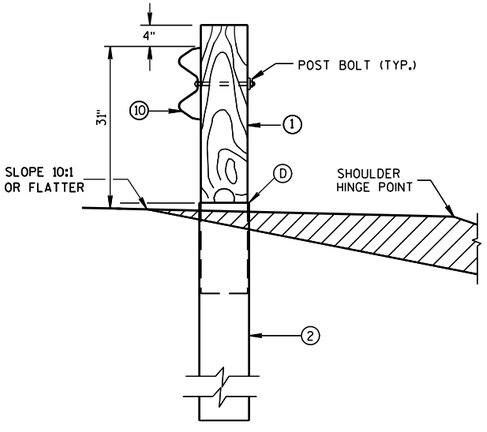
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

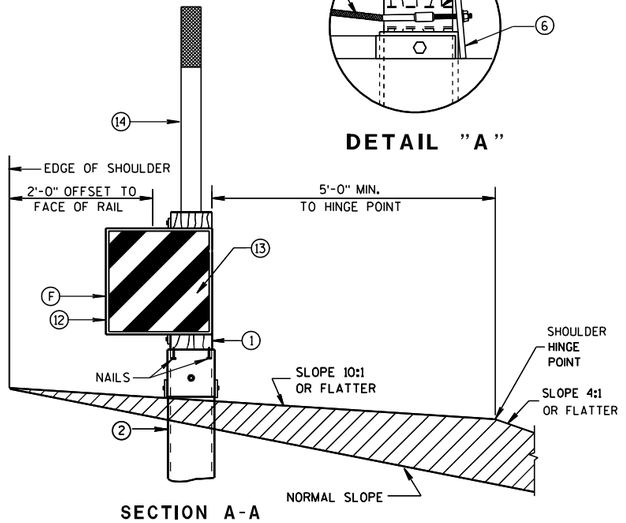




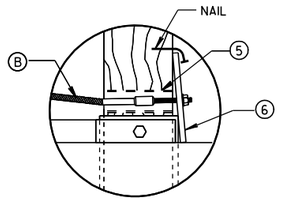
SECTION C-C
TYPICAL AT POST NOS. 3-9



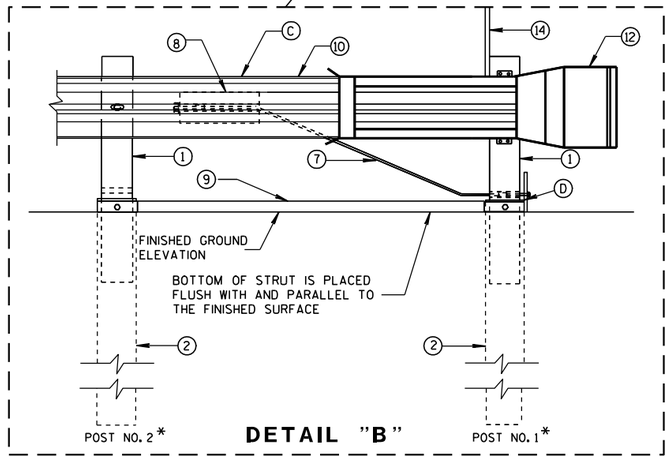
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"

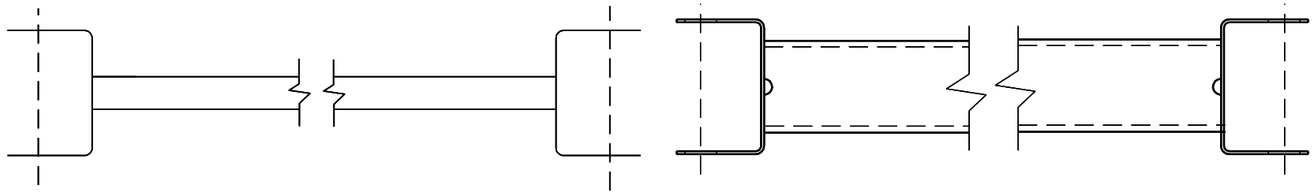


DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

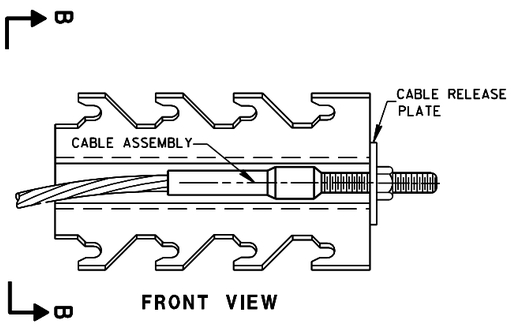
6
S.D.D. 14 B 44-1a



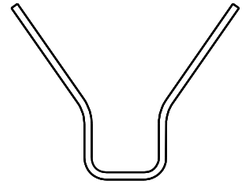
GENERIC GROUND STRUT (9) (H)

BILL OF MATERIALS

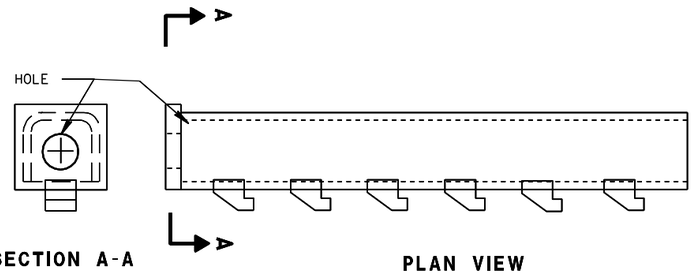
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



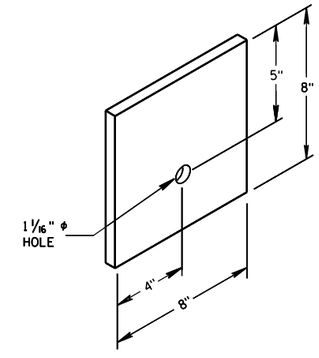
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



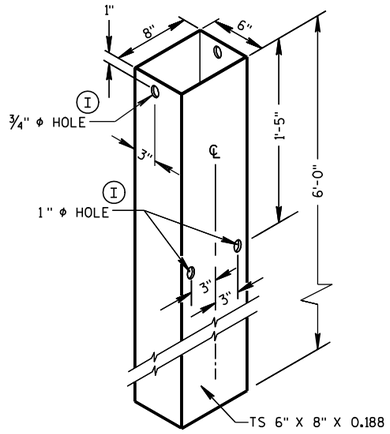
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

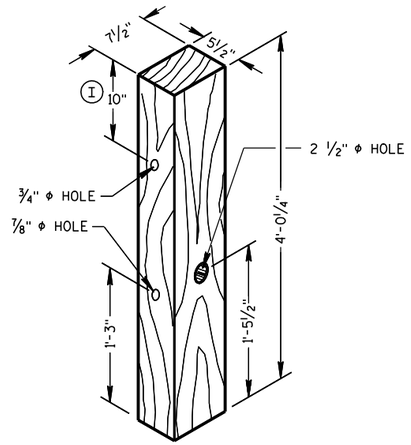
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

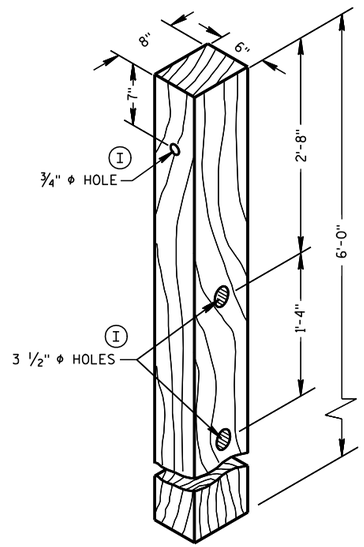


FOUNDATION TUBE (2)



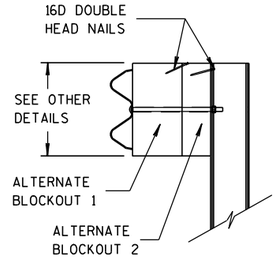
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

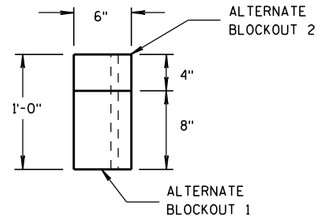


POSTS NUMBER 3-9

WOOD CRT POST (3)

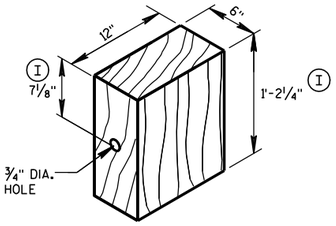


SIDE VIEW



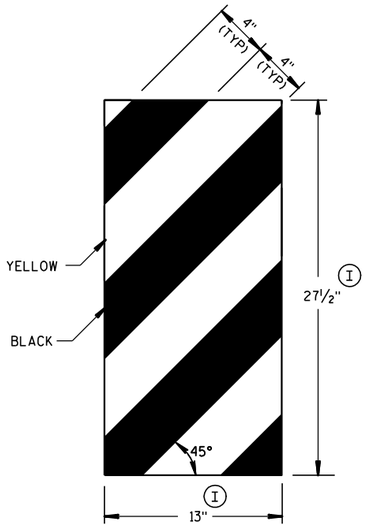
TOP VIEW

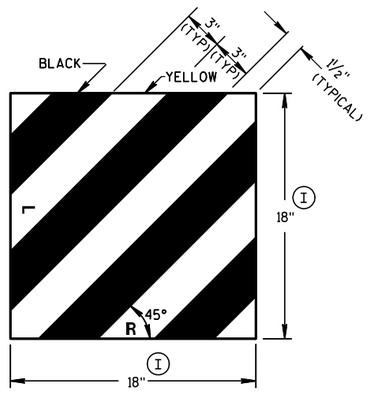
ALTERNATE WOOD BLOCKOUT DETAIL



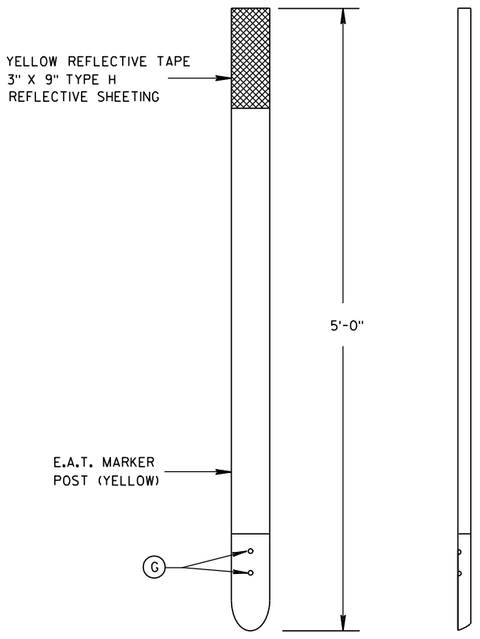
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





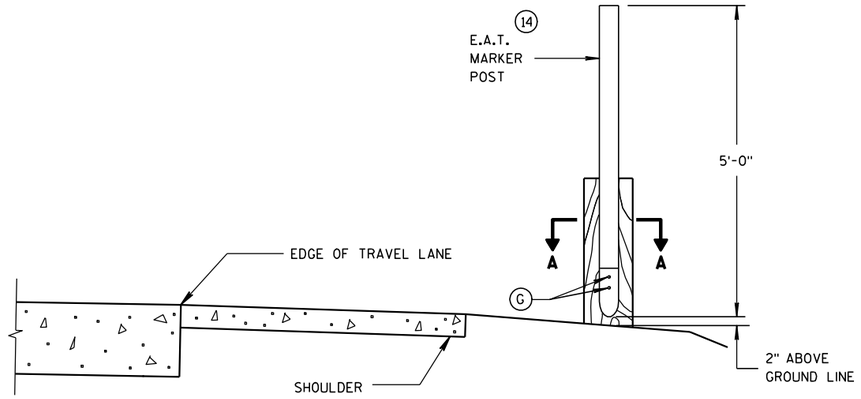
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

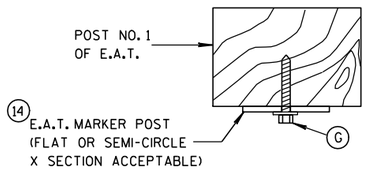
SIDE VIEW

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

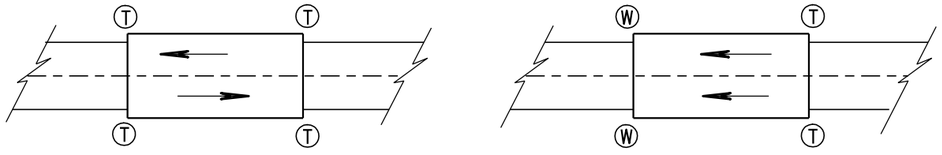
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

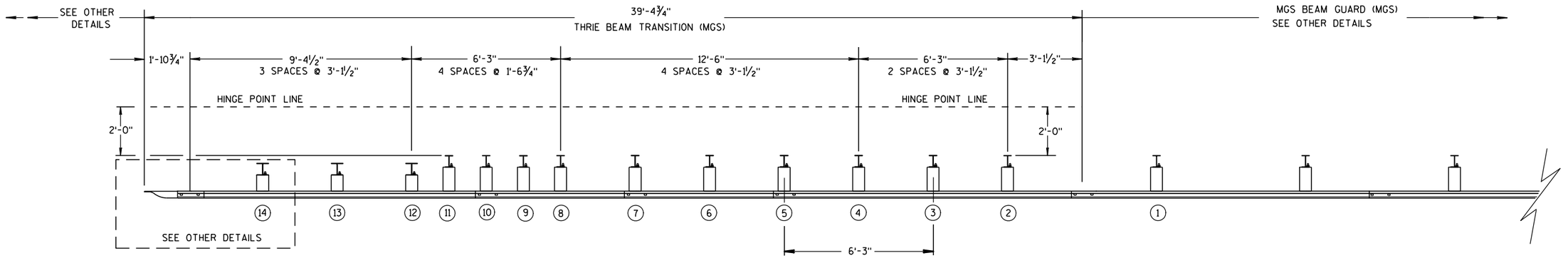
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

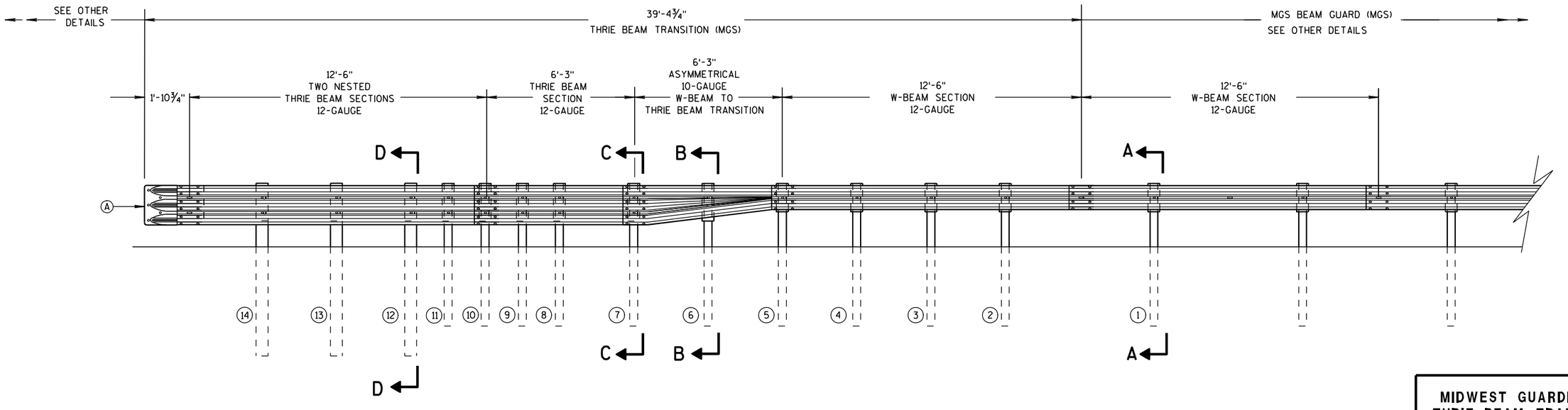
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

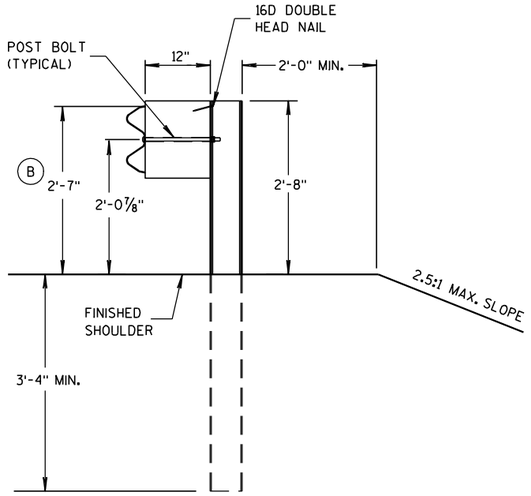
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3a

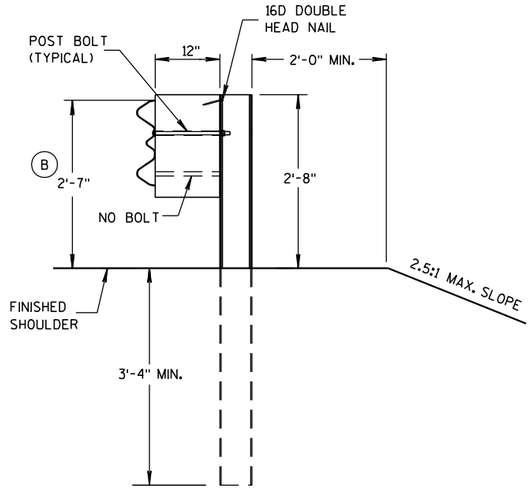
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



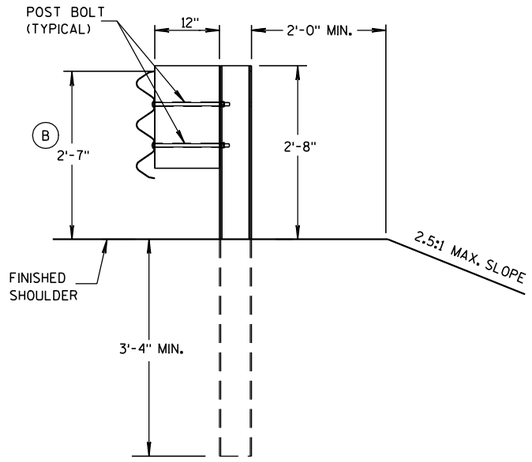
SECTION A-A

POSTS 1-5



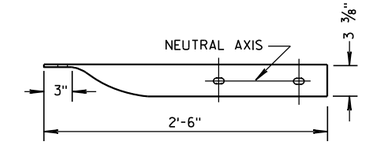
SECTION B-B

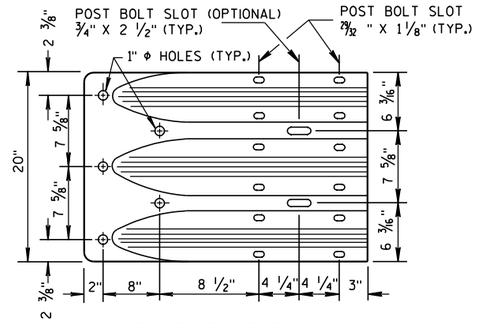
POST 6



SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR

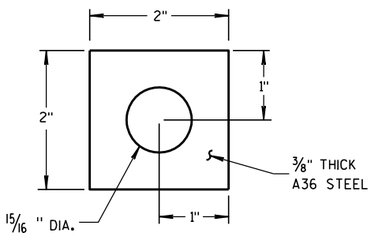
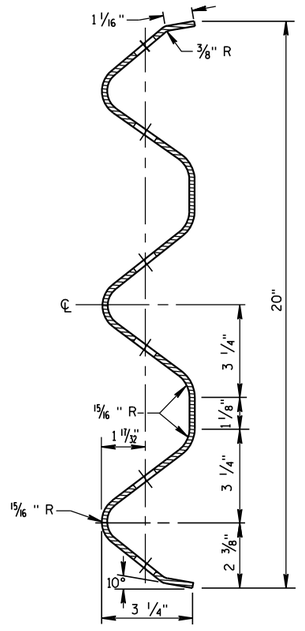
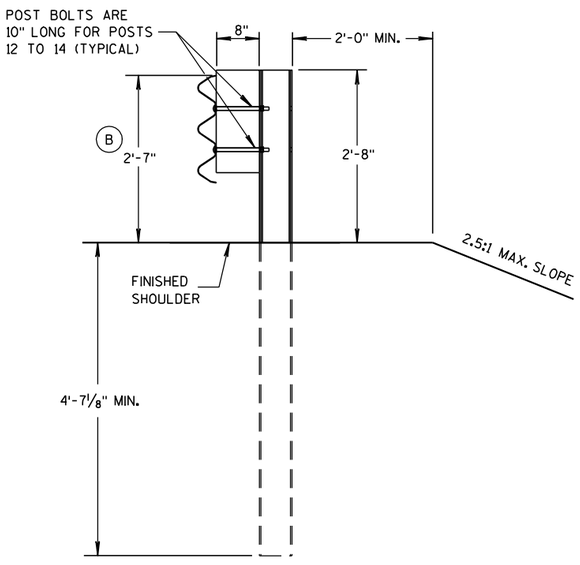


PLATE WASHER DETAIL

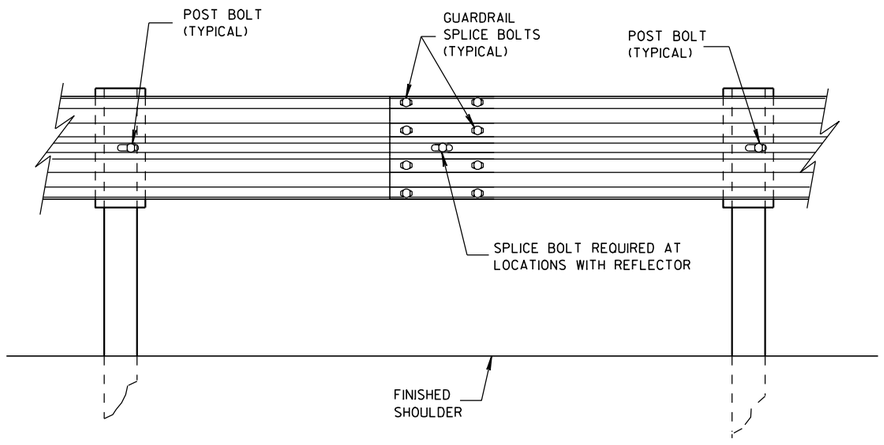


SECTION THRU THRIE BEAM RAIL ELEMENT



SECTION D-D

POSTS 12-14



SPLICE DETAIL

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

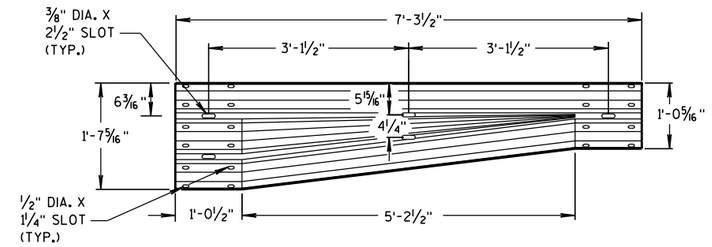
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

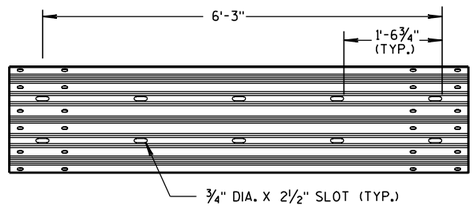
S.D.D. 14 B 45-3b

6

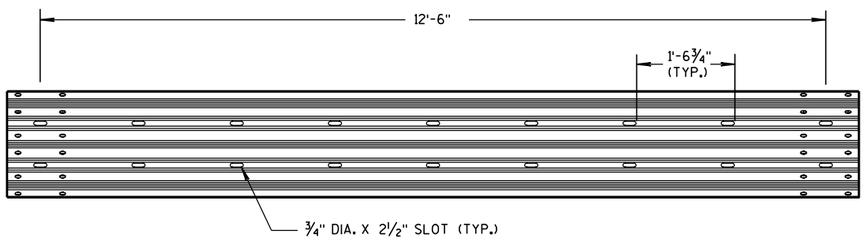
S.D.D. 14 B 45-3b



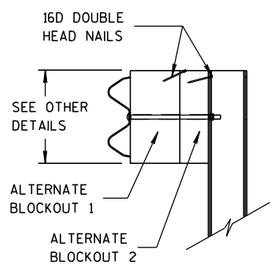
W-BEAM TO THRIE BEAM TRANSITION SECTION



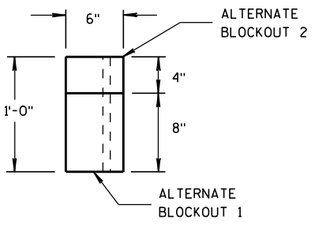
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

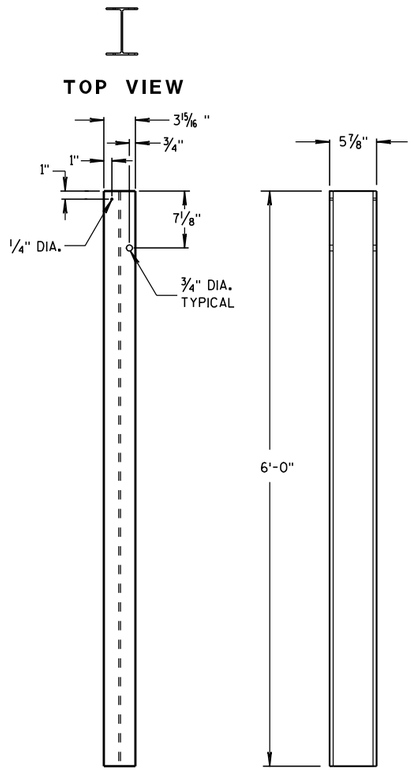


SIDE VIEW

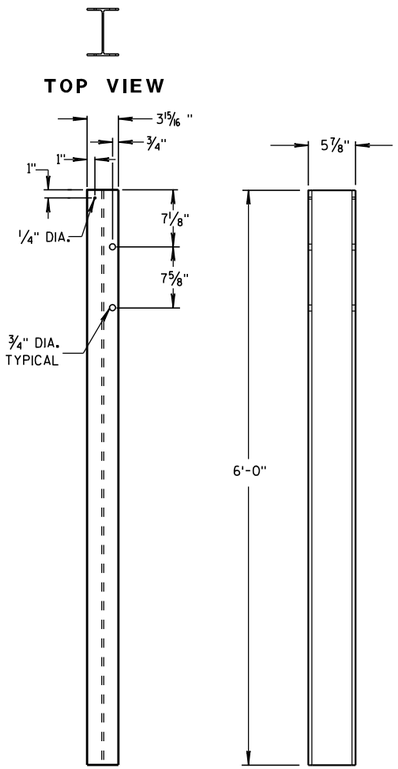


TOP VIEW

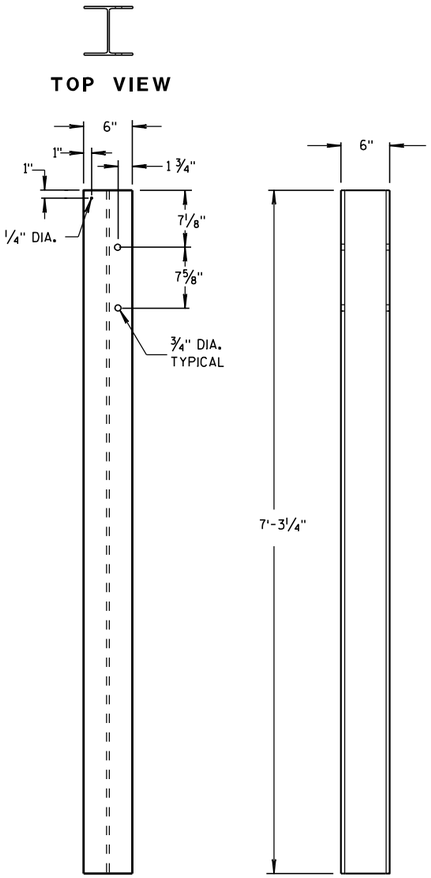
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

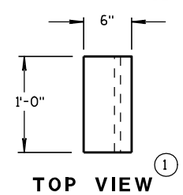


STEEL POSTS 6-11

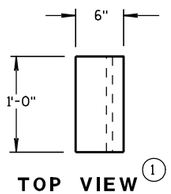


STEEL POSTS 12-14

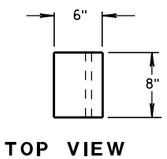
1 WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



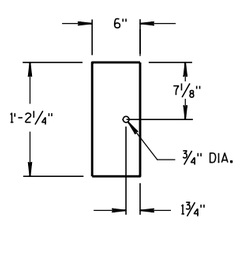
TOP VIEW (1)



TOP VIEW (1)

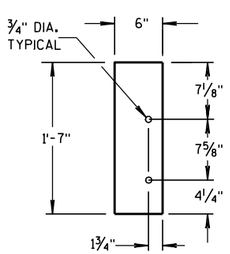


TOP VIEW



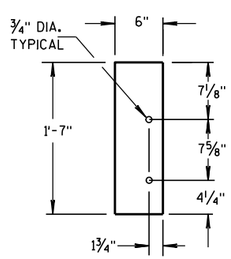
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

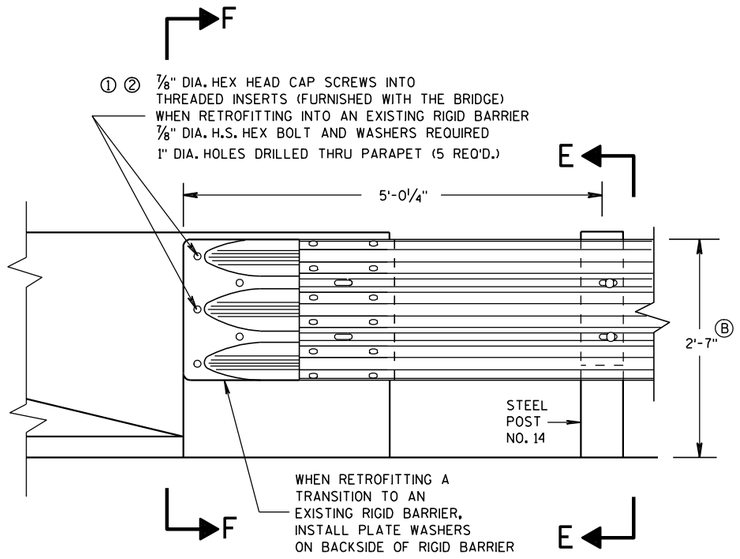
STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

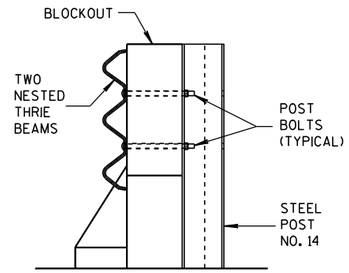
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3c



FRONT VIEW



SECTION E-E

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

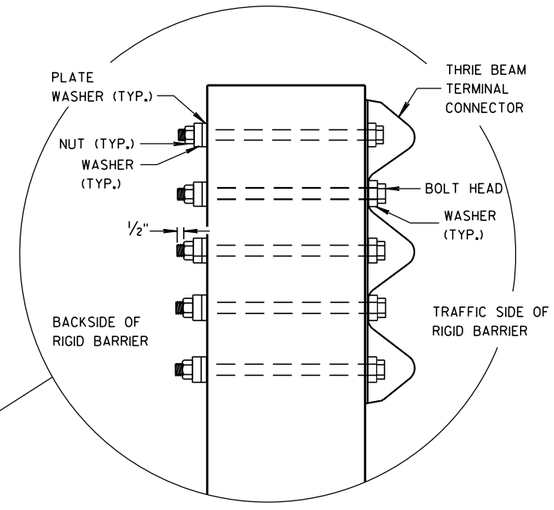
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

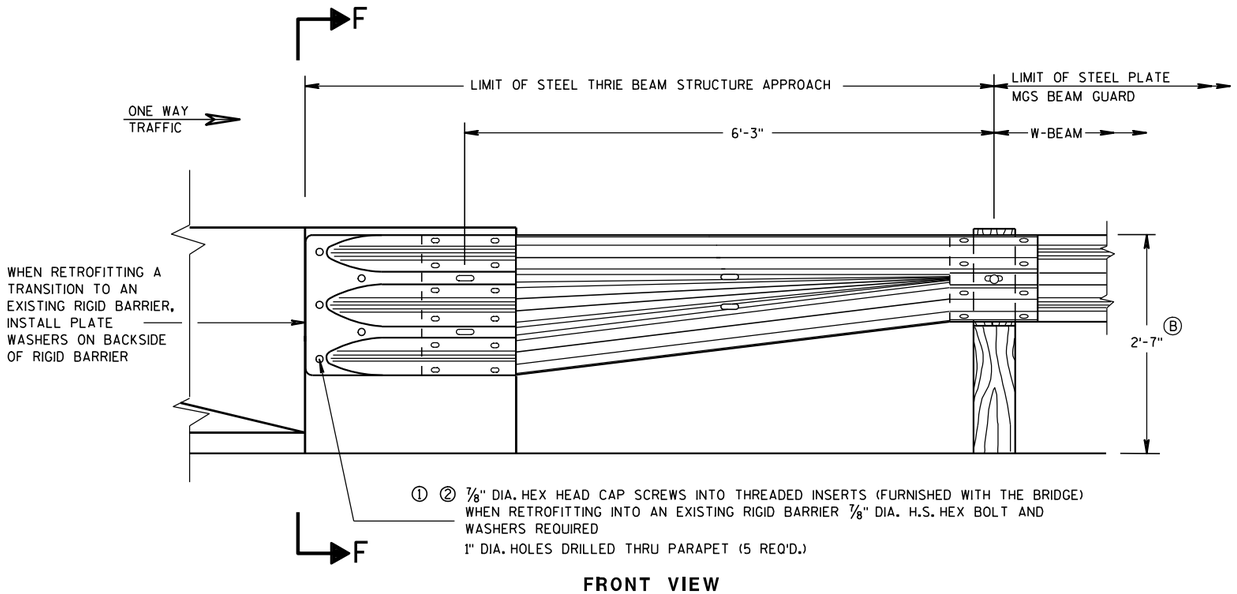
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

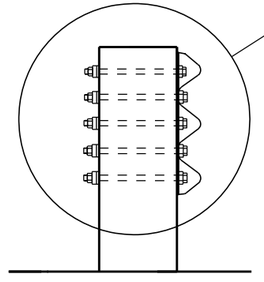
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS





FRONT VIEW



SECTION F-F

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. [illegible] — ROADWAY STANDARDS (430) ENGINEER

FHWA

6

S.D.D. 14 B 45-3d

6

S.D.D. 14 B 45-3d

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

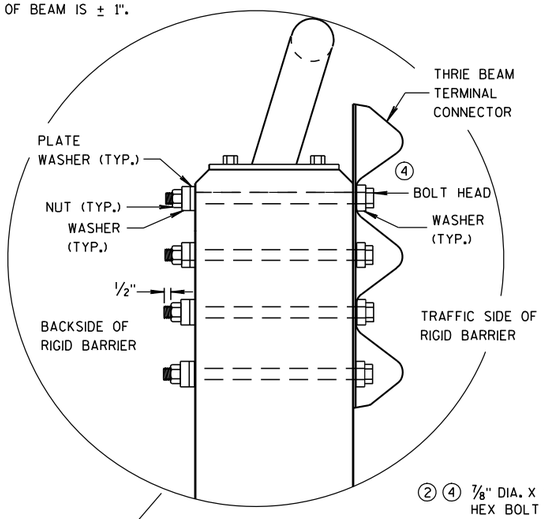
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

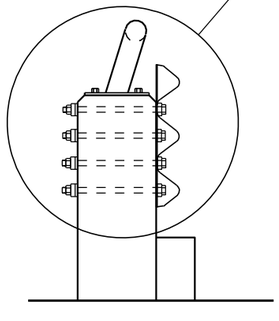
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③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2". BLOCK IS INCIDENTAL TO THE CONTRACT.

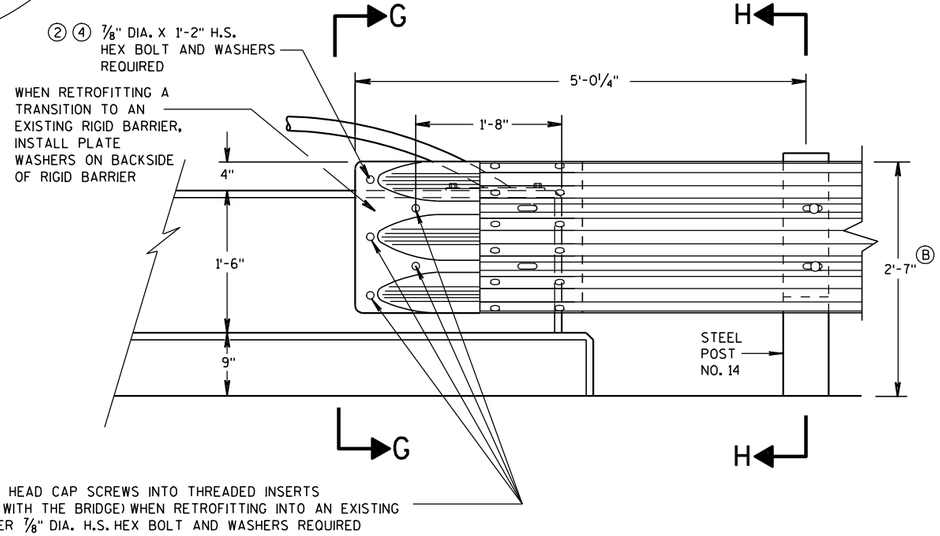
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

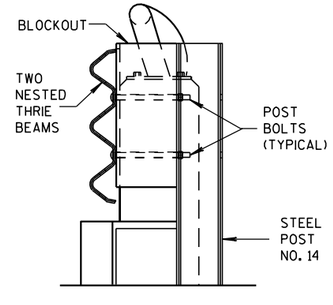




SECTION G-G

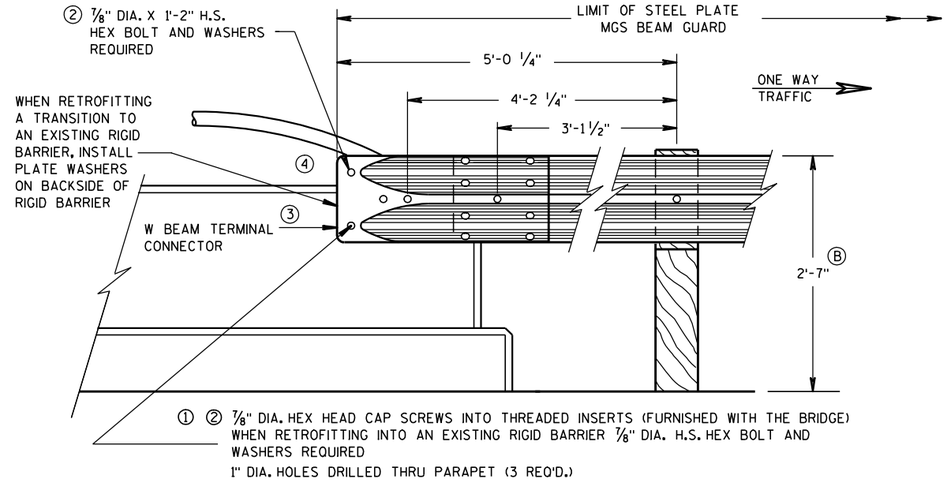


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

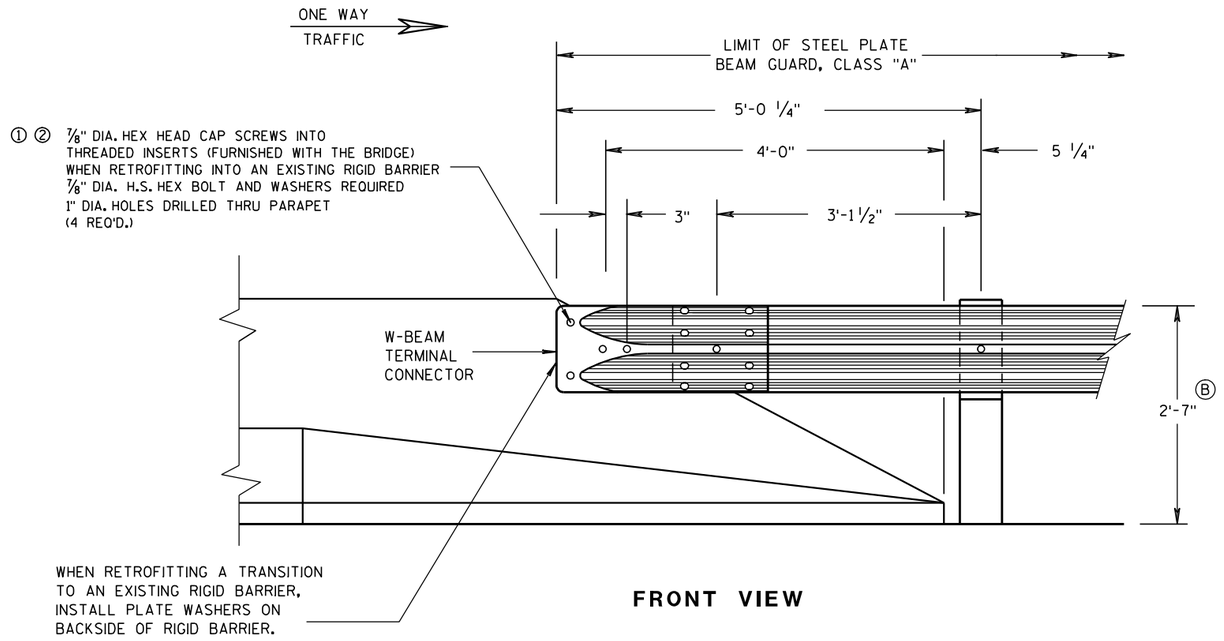
APPROVED

8-31-2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6
S.D.D. 14 B 45-3e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

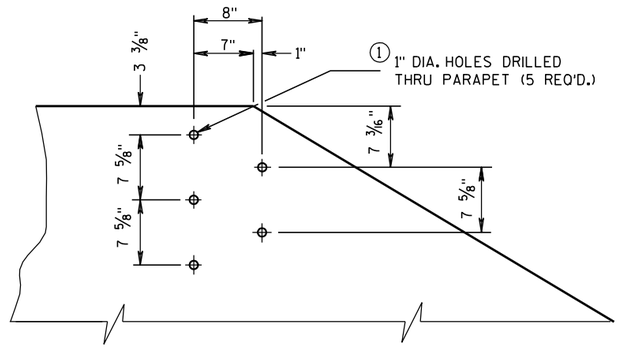
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

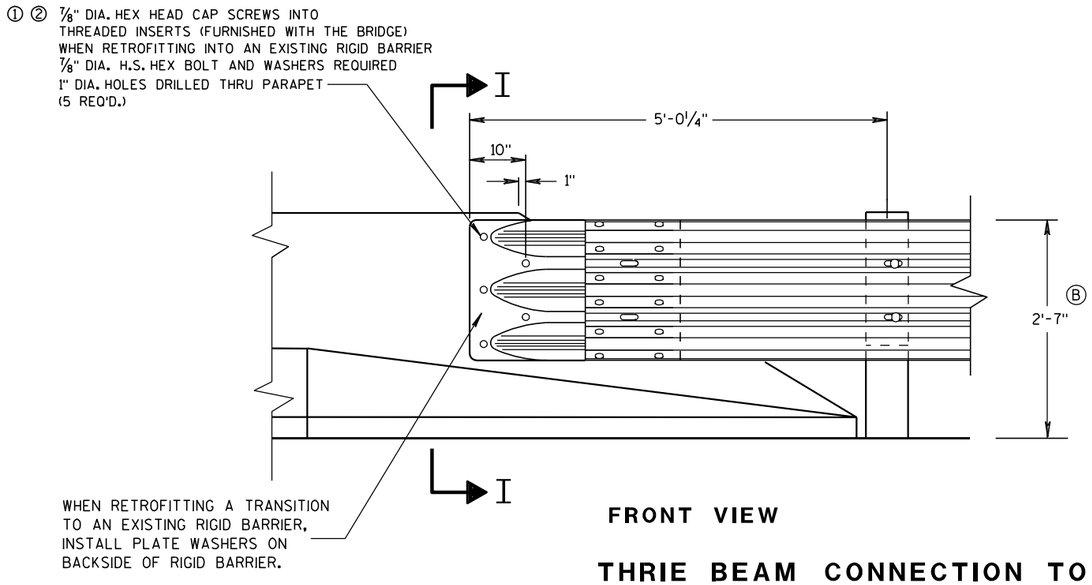
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

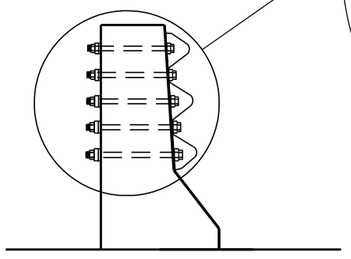
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



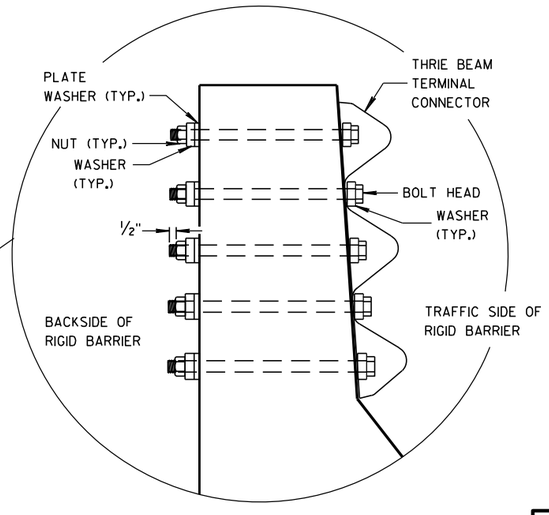
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER

432

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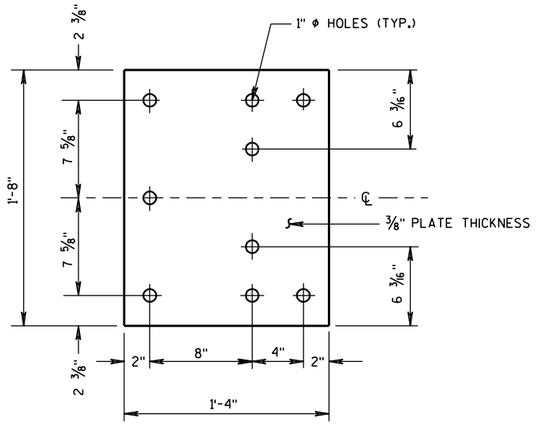
FHWA

6

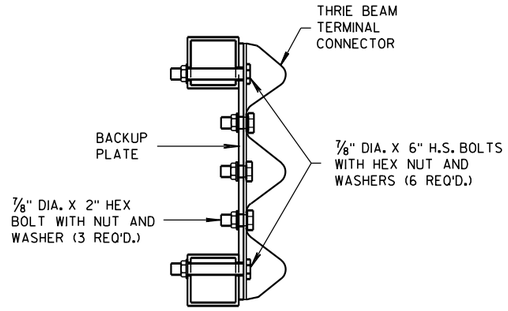
S.D.D. 14 B 45-3f

6

S.D.D. 14 B 45-3f



BACK-UP PLATE DETAIL

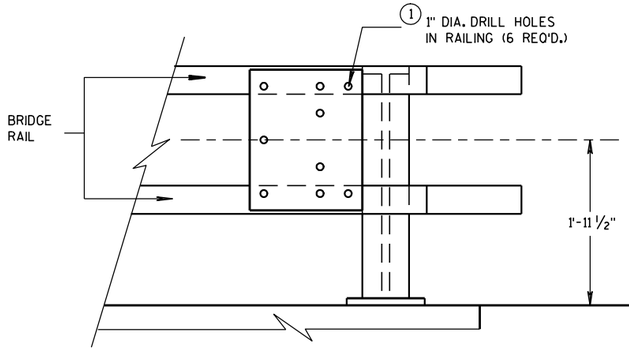


SECTION J-J

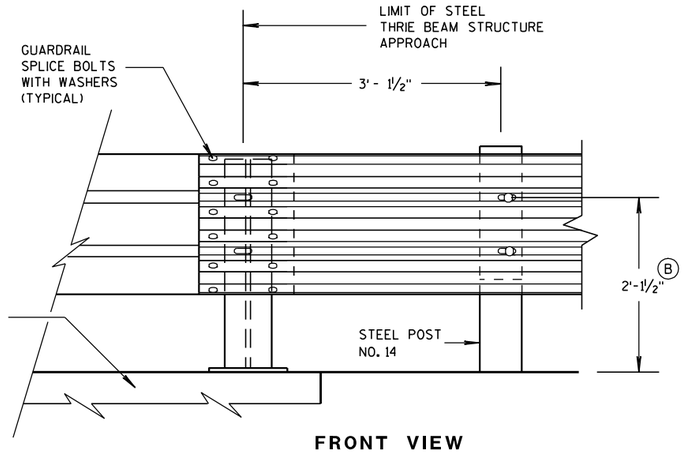
GENERAL NOTES

(1) DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(B) TOLERANCE FOR TOP OF BEAM IS ± 1".

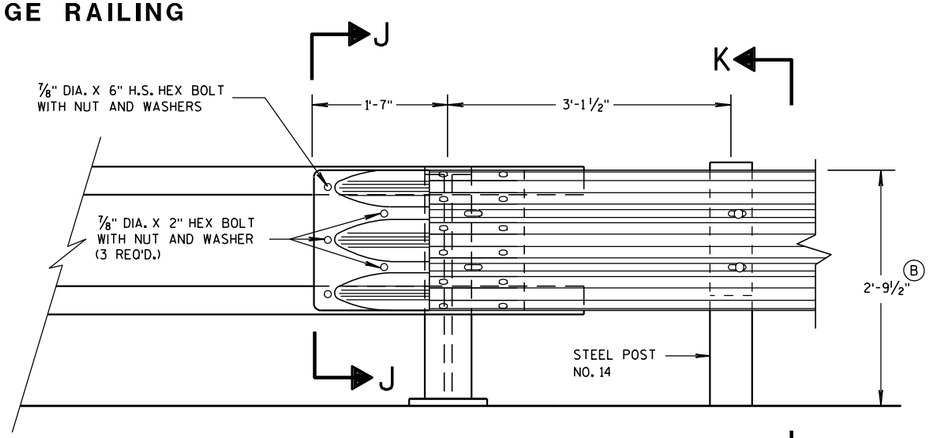


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

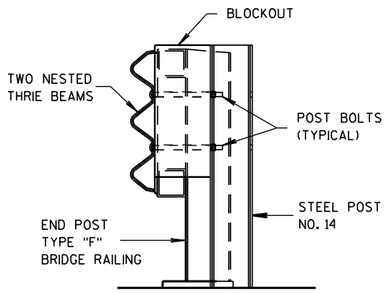


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVED 8/31/2012 DATE /S/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER FHWA

6

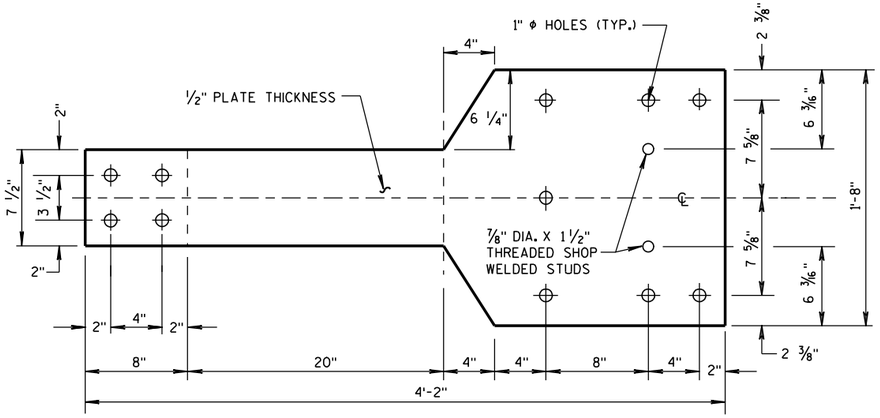
S.D.D. 14 B 45-3g

6

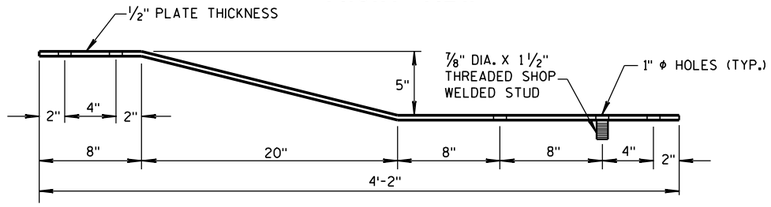
S.D.D. 14 B 45-3g

GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

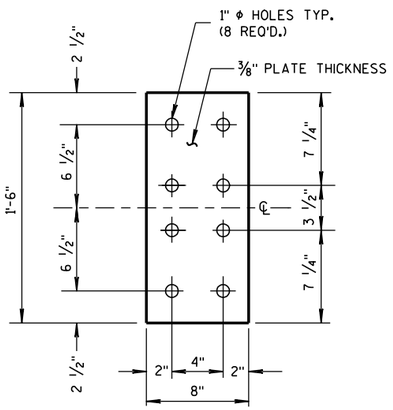


FRONT VIEW



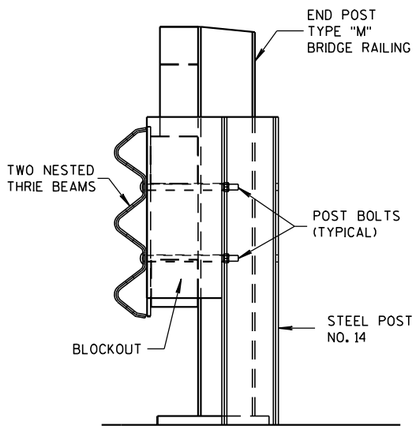
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

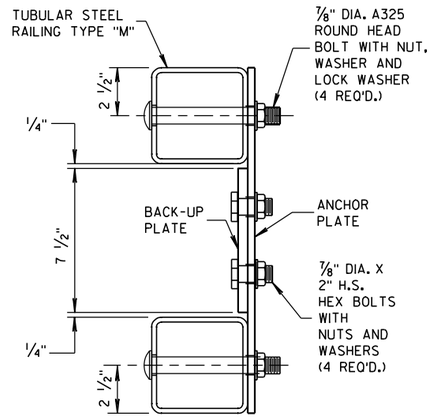


FRONT VIEW

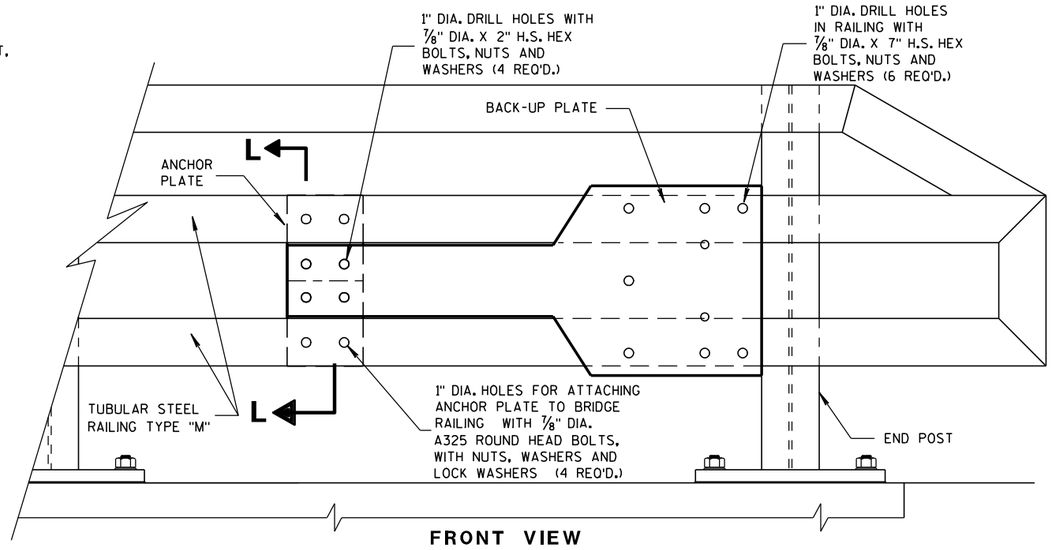
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

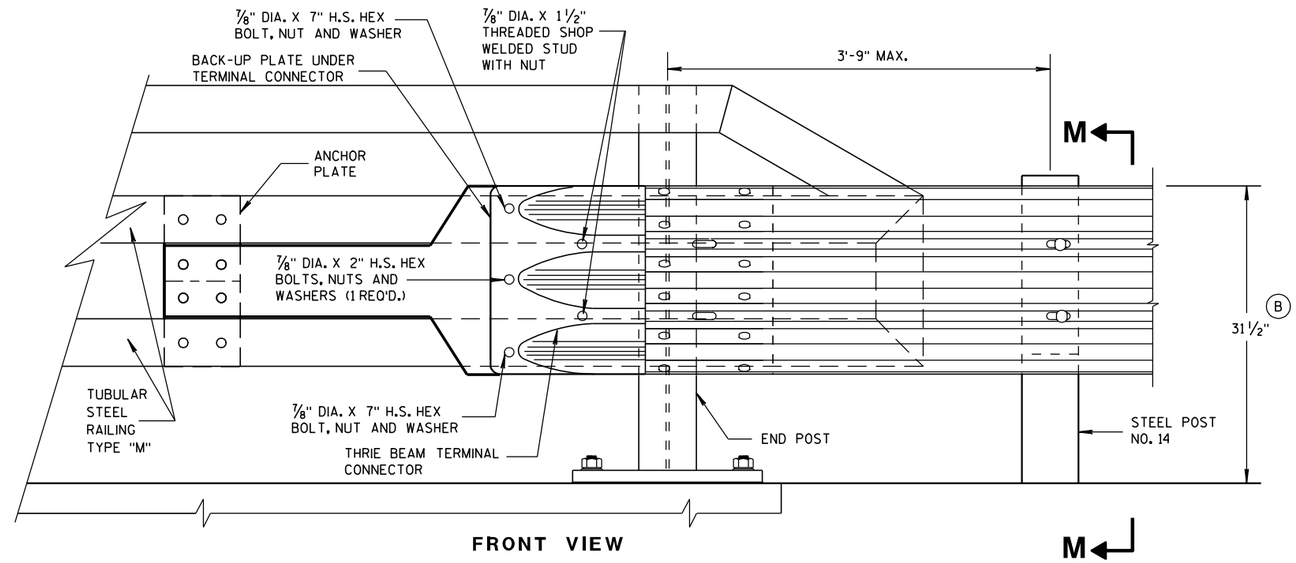


SECTION L-L

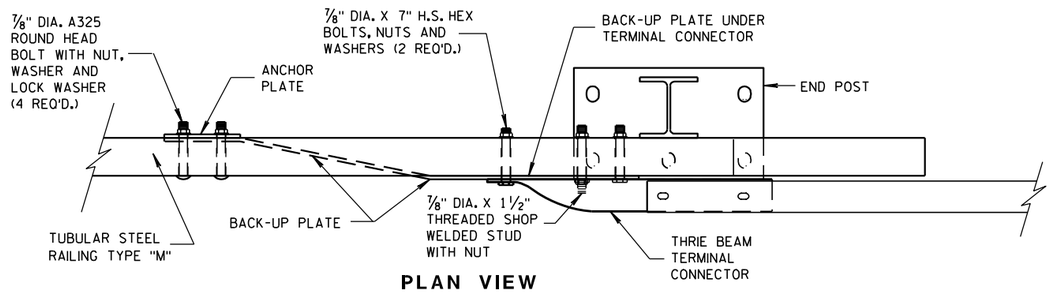


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-31-2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
434
ENT
FHWA

6

S.D. 14 B 45-3h

6

S.D. 14 B 45-3h

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

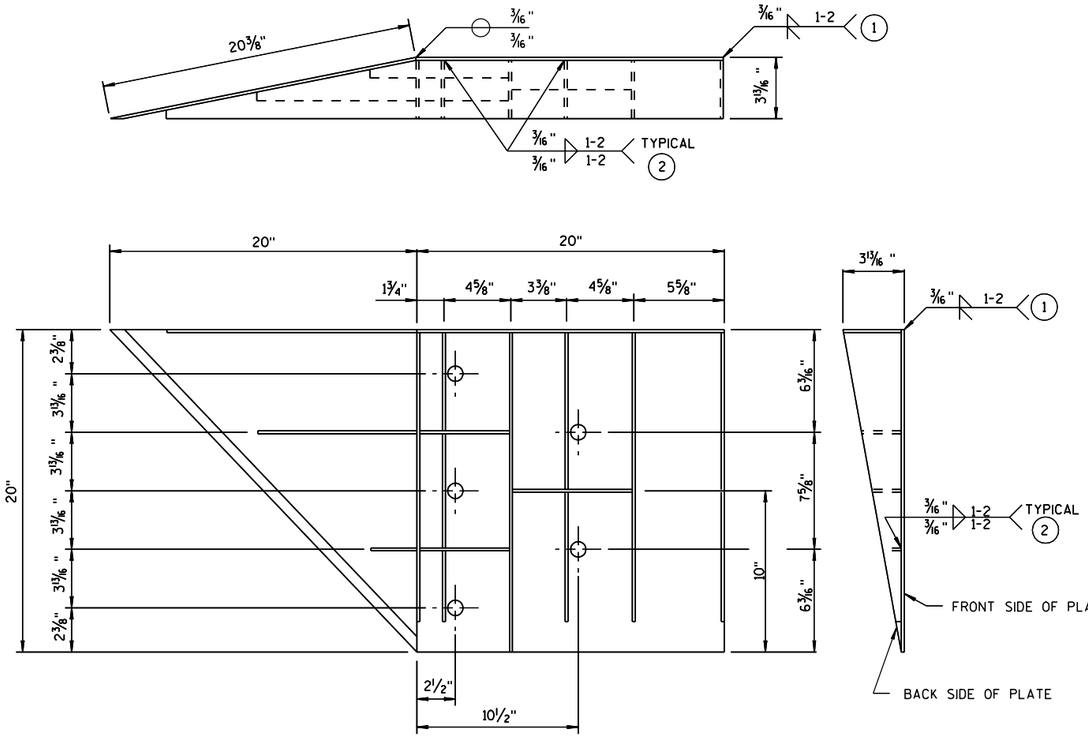
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

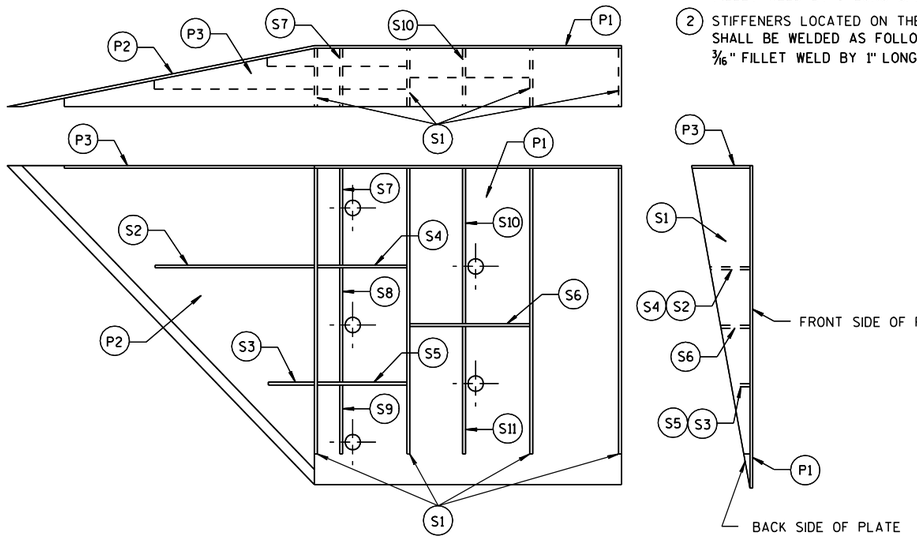


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

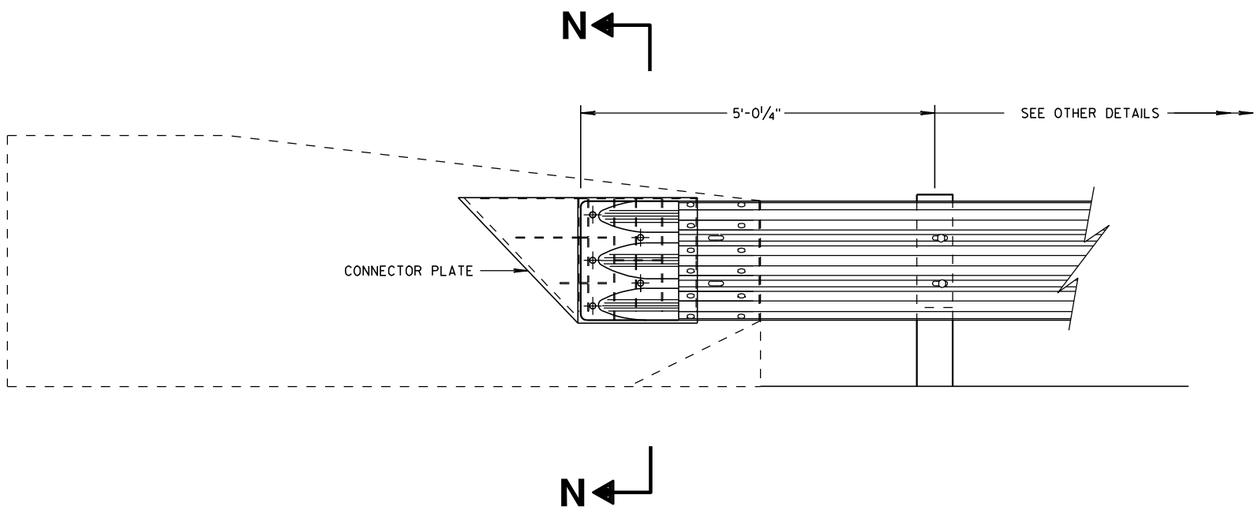
APPROVED
8/31/2012 — DATE
/S/ Jerry H ---- — ROADWAY STANDARDS ENGINEER
435 — ...MENT
FHWA

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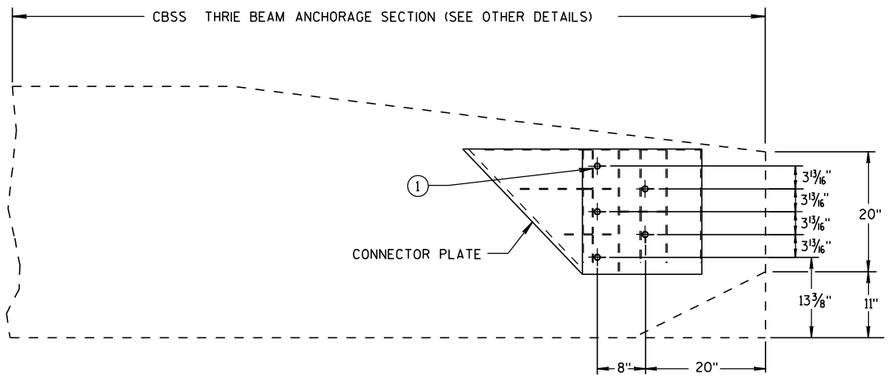
S.D.D. 14 B 45-3i

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S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

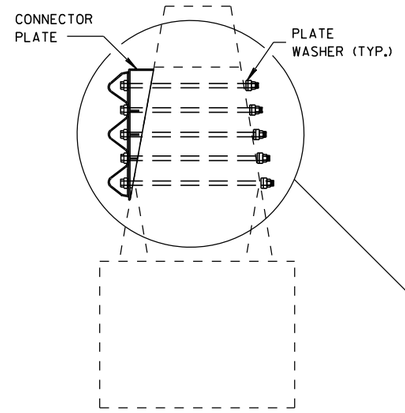


SINGLE SLOPE CONNECTION PLATE PLACEMENT

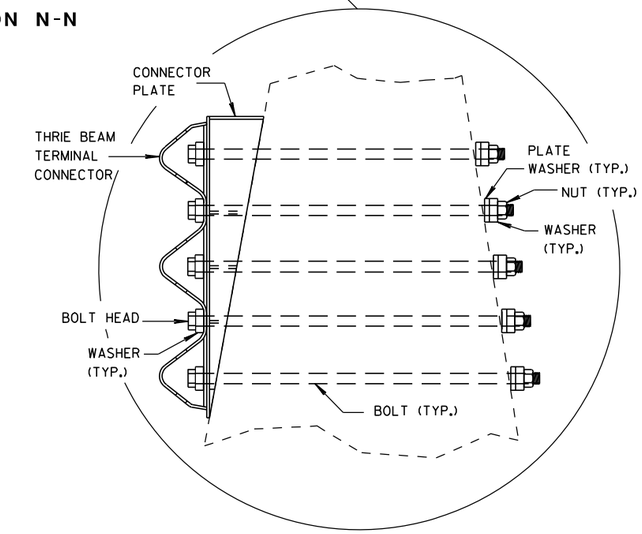
GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

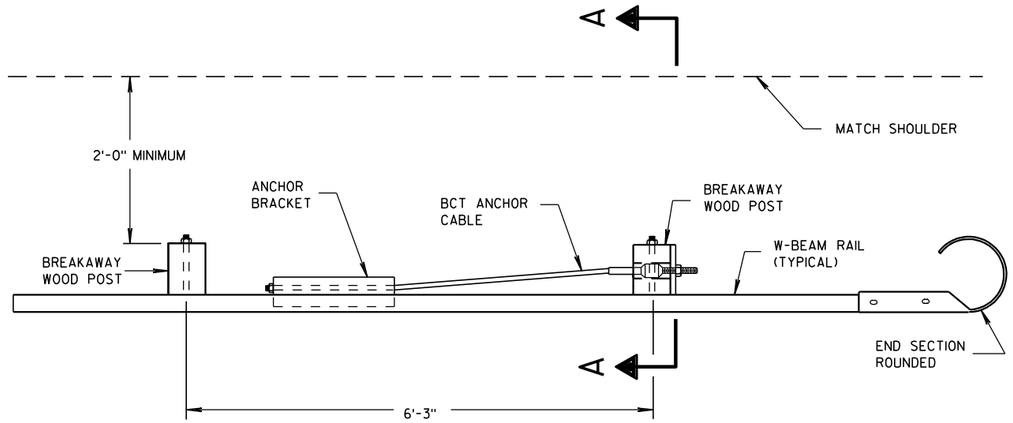
FHWA

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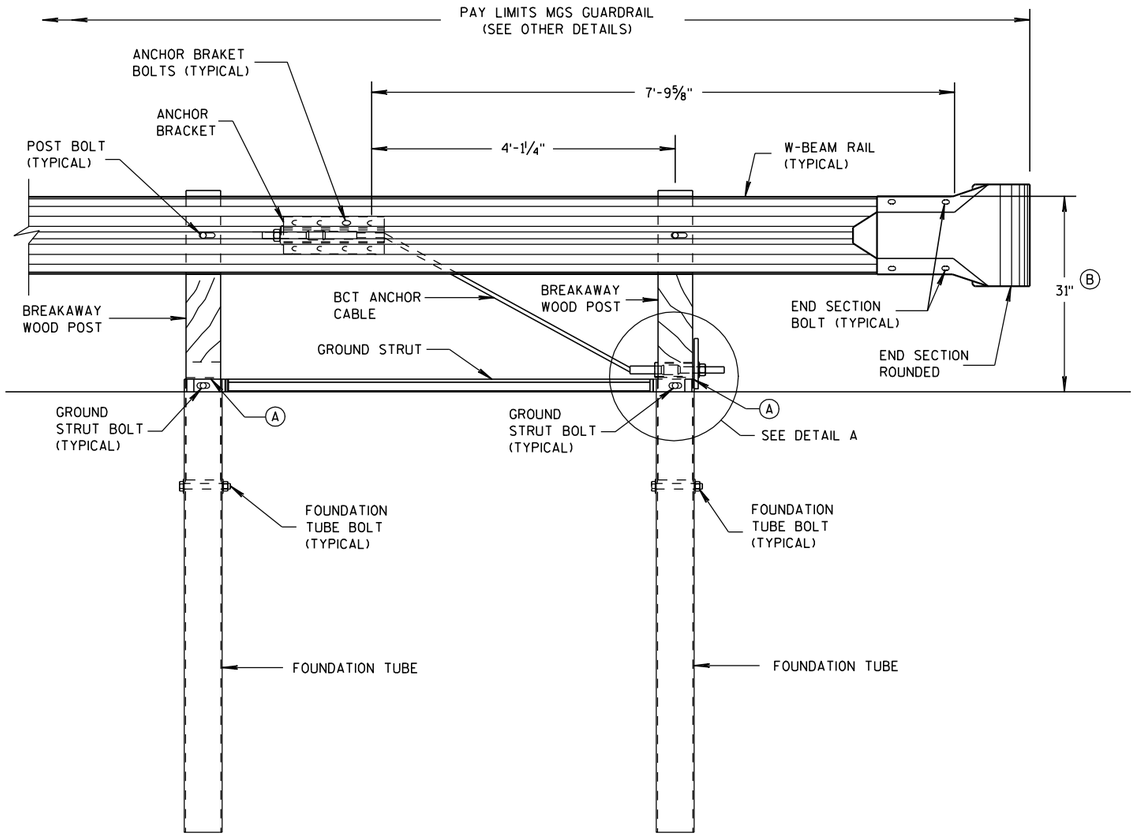
S.D.D. 14 B 45-3j

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S.D.D. 14 B 45-3j

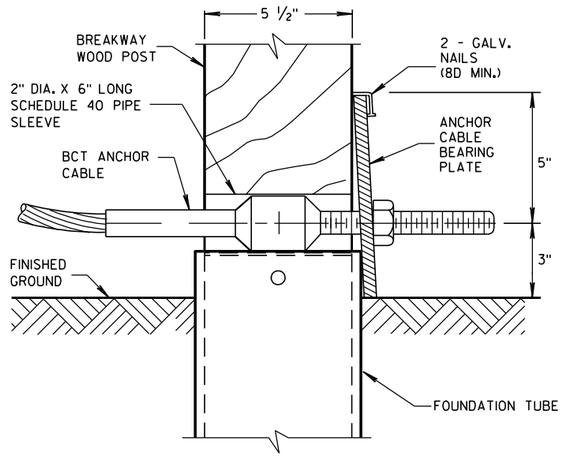


PLAN VIEW



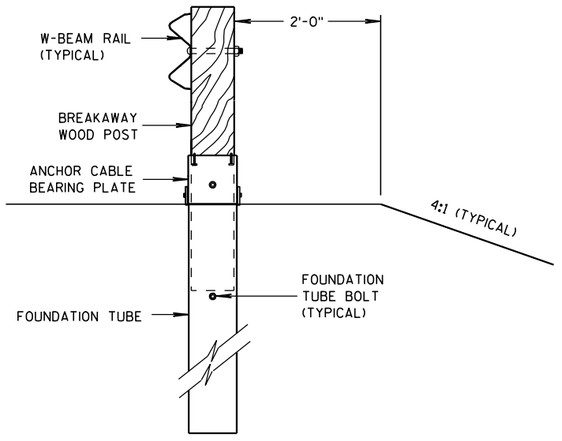
FRONT VIEW

END RAIL DETAIL



DETAIL A

POST NO. 1
GROUNG STRUT NOT SHOWN FOR CLARITY.



SECTION A-A

GENERAL NOTES

SEE SDD 14 B 42 FOR MORE INFORMATION.

POST BOLTS ARE A ⅝" DIAMETER X 10" LONG GUARDRAIL BOLT. A POST BOLT REQUIRES A ⅝" DIAMETER DH MODIFIED (RECESSED) HEAVY HEX NUT AND ⅝" DIAMETER FLAT WASHER.

FOUNDATION TUBE BOLTS ARE A ⅞" DIAMETER X 7½" LONG HEAVY HEX HEAD BOLT. A FOUNDATION TUBE BOLT REQUIRES A ⅞" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

GROUND STRUT BOLTS ARE A ⅝" DIAMETER X 10" LONG HEAVY HEX HEAD BOLT. A GROUND STRUT BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

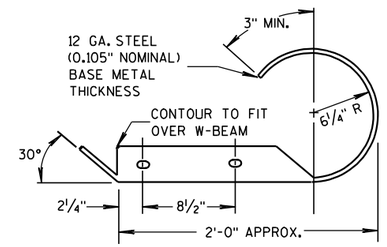
ANCHOR BRAKET BOLTS ARE A ⅝" DIAMETER X 1½" LONG HEAVY HEX HEAD BOLT. AN ANCHOR BRAKET BOLT REQUIRES A ⅝" DIAMETER DH HEAVY HEX NUT AND A FLAT WASHER.

END SECTION BOLTS ARE A ⅝" DIAMETER X 1½" HEAVY HEX HEAD BOLT. AN END SECTION BOLT REQUIRES ⅝" DIAMETER DH HEAVY HEX NUT AND A ⅝" DIAMETER FLAT WASHER.

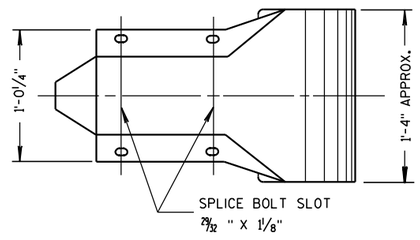
W-BEAM END SECTION ROUNDED HAS THE SAME MATERIAL PROPERTIES AS STANDARD STEEL RAIL.

(A) TOP OF FOUNDATION TUBE SHALL BE NO MORE THAN 3" ABOVE FINISHED GROUND.

(B) FOR NEW CONSTRUCTION TOP OF RAIL IS 31" ± 1".
FOR EXISTING INSTALLATIONS TOP OF RAIL IS BETWEEN 27¾" TO 32" ± 1".



PLAN VIEW



FRONT VIEW

W BEAM END SECTION ROUNDED

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

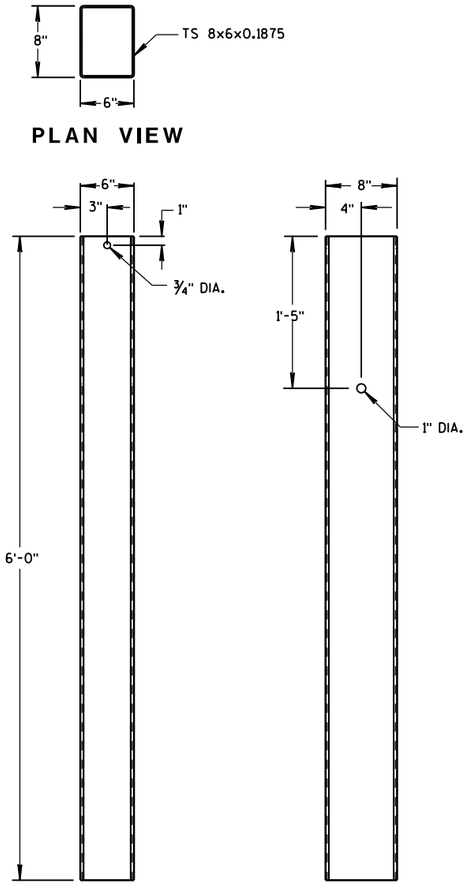
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 47-1a

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S.D.D. 14 B 47-1a

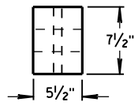


PLAN VIEW

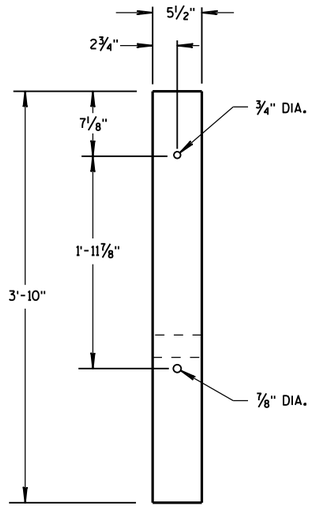
FRONT VIEW

SIDE VIEW

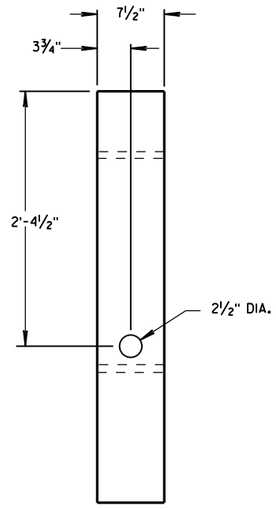
FOUNDATION TUBE



PLAN VIEW



FRONT VIEW

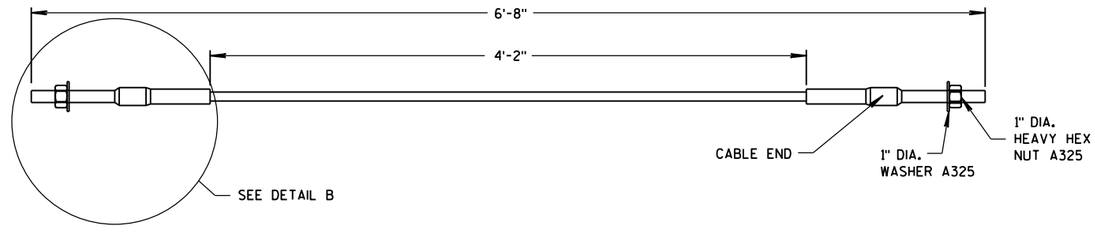


SIDE VIEW

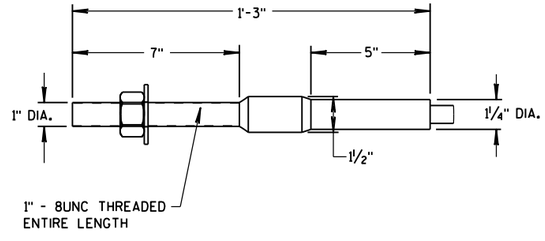
BREAKAWAY WOOD POST

GENERAL NOTES

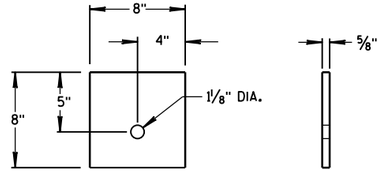
BCT ANCHOR CABLE IS A ⅜" DIAMETER 6X19 IWRC IPS GALVANIZED WIRE ROPE. THE SWAGED FITTINGS AND STUD ARE REQUIRED. THE END FITTING SHALL BE MACHINED FROM HOT-ROLLED CARBON STEEL CONFORMING TO ASTM A576 GRADE 1035 AND GALVANIZED ACCORDING TO ASTM A123. THE TREADED STUD SHOULD CONFORM TO ASTM A325 OR SAE GRADE 5. MINIMUM BREAKING STRENGTH OF WIRE ROPE IS 43,000 LB. WIRE ROPE IS TO BE TAUT.



BCT ANCHOR CABLE



DETAIL B



SIDE VIEW FRONT VIEW

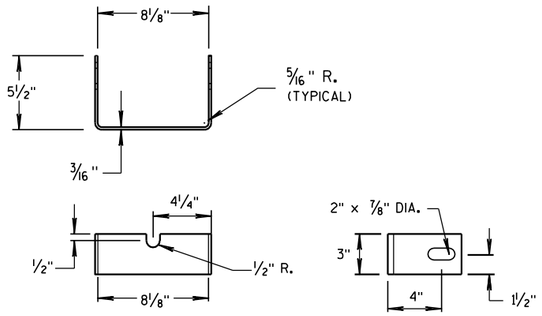
ANCHOR CABLE
BEARING PLATE

MIDWEST GUARDRAIL
SYSTEM (MGS) TYPE 2 TERMINAL

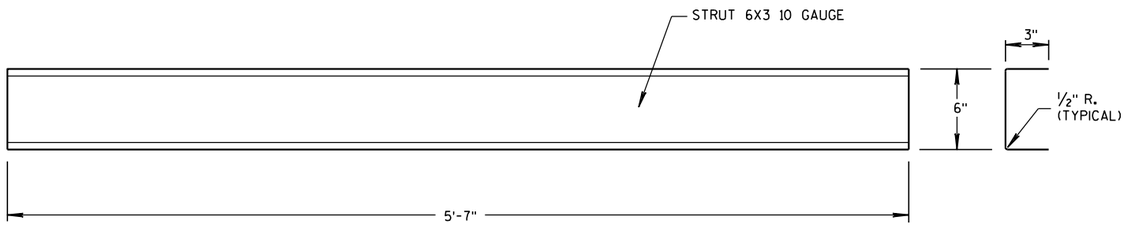
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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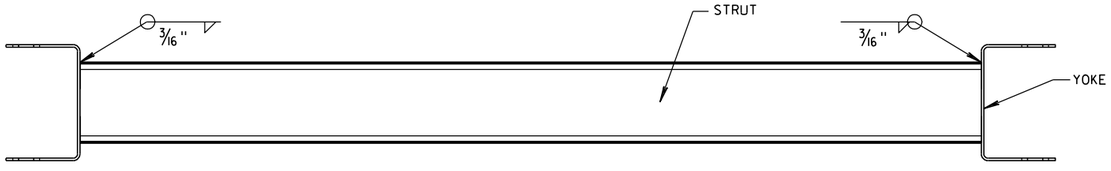
S.D.D. 14 B 47-1b



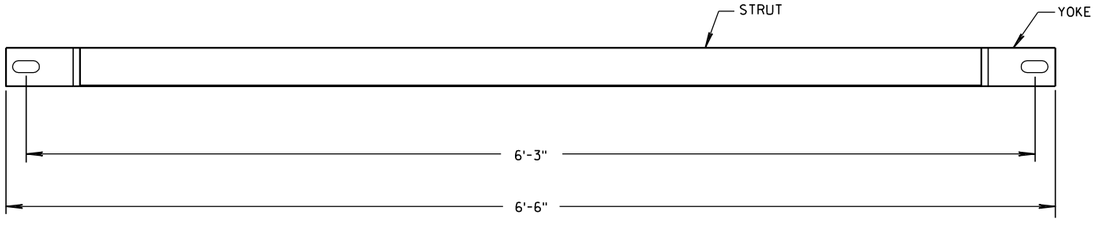
YOKE DETAIL



STRUT DETAIL

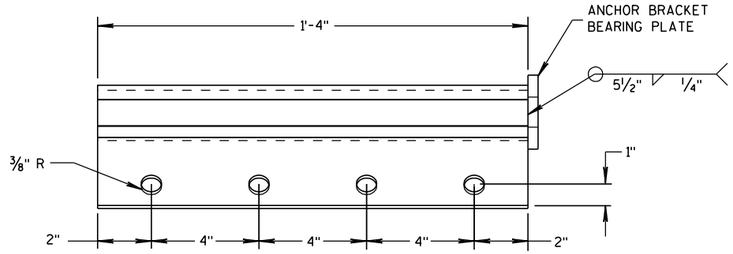


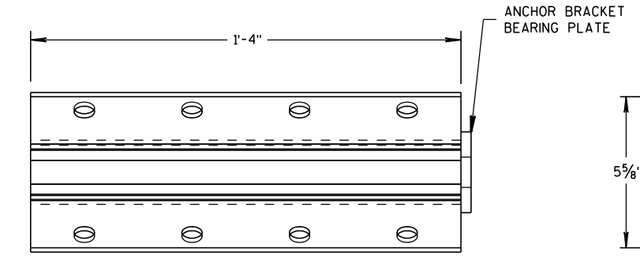
PLAN VIEW

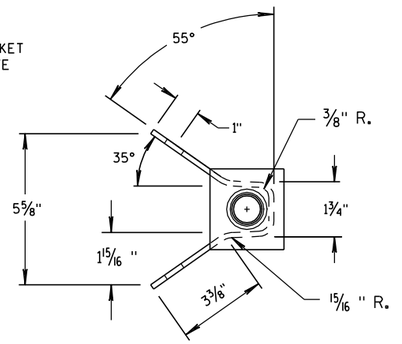


FRONT VIEW

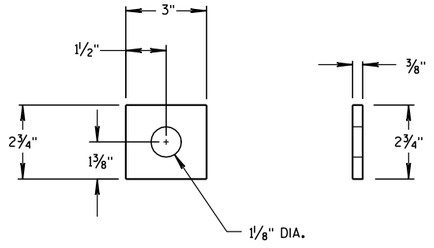
GROUND STRUT DETAIL







ANCHOR BRACKET

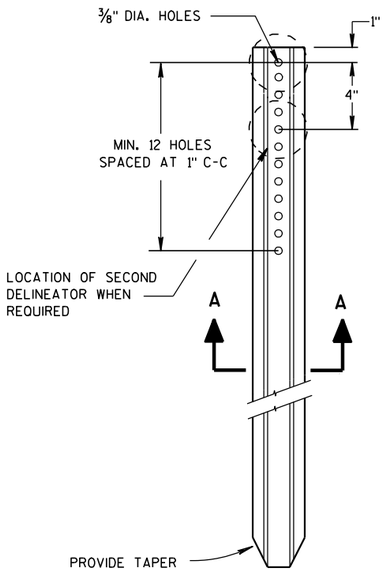


ANCHOR BRACKET BEARING PLATE

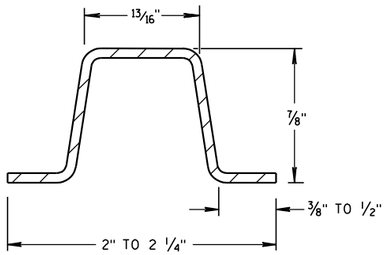
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
5/23/2011 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA	

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S.D.D. 14 B 47-1c

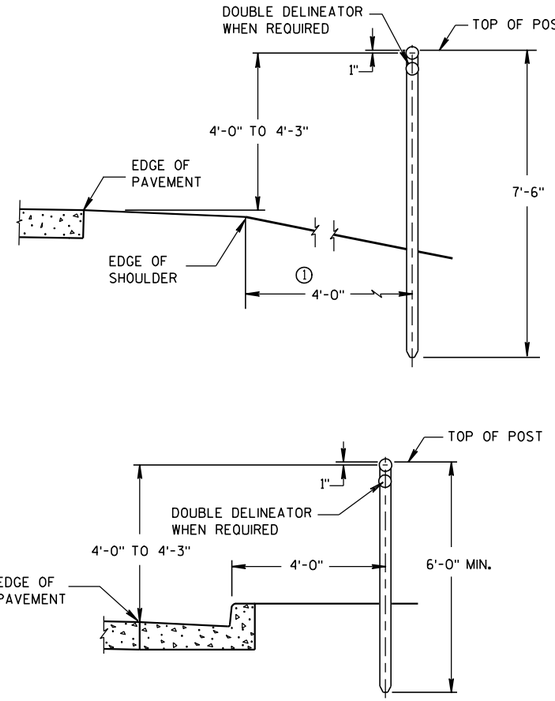


DELINEATOR POST



SECTION A-A

WEIGHT 1.12 LBS PER FT. ± 0.1 LB.

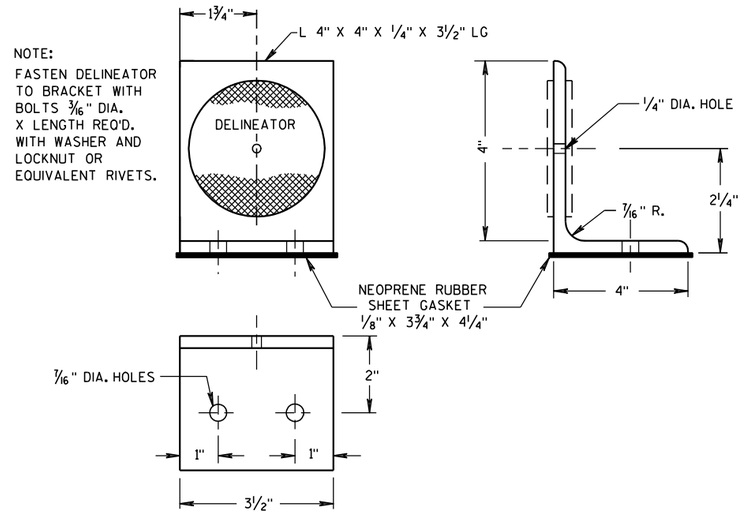


TYPICAL INSTALLATIONS OF DELINEATOR POSTS

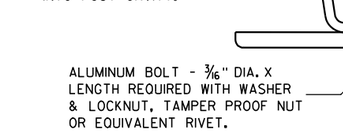
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

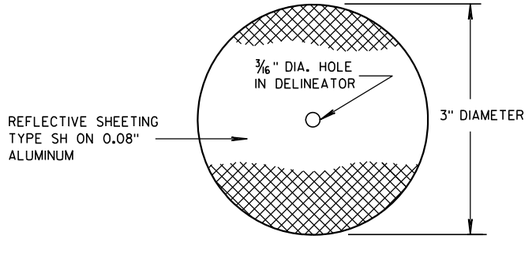
① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.



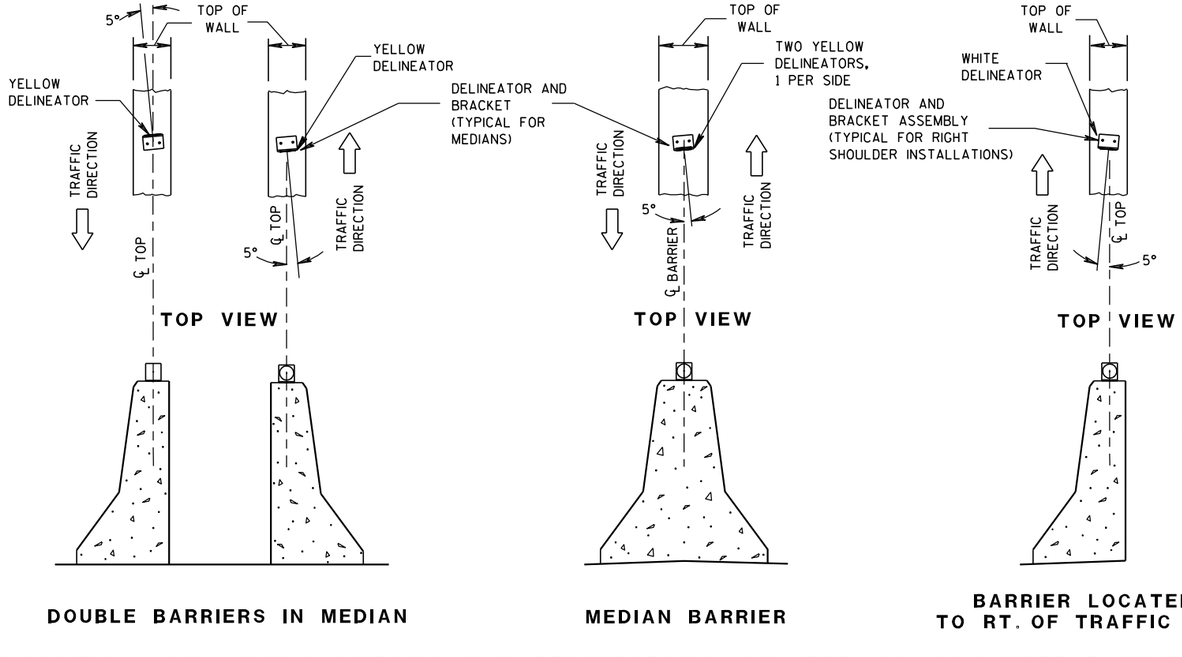
DELINEATOR BRACKET



MOUNTING DETAIL FOR DELINEATOR



DELINEATOR

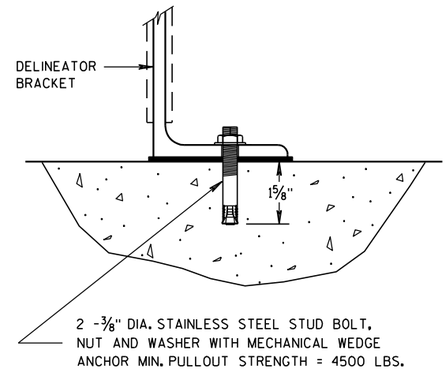


DOUBLE BARRIERS IN MEDIAN

MEDIAN BARRIER

BARRIER LOCATED TO RT. OF TRAFFIC FLOW

LOCATION AND AIMING DETAILS FOR DELINEATORS MOUNTED ON CONCRETE BARRIERS



DELINEATOR BRACKET MOUNTING DETAIL

DELINEATOR POST, DELINEATOR BRACKET AND DELINEATOR

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

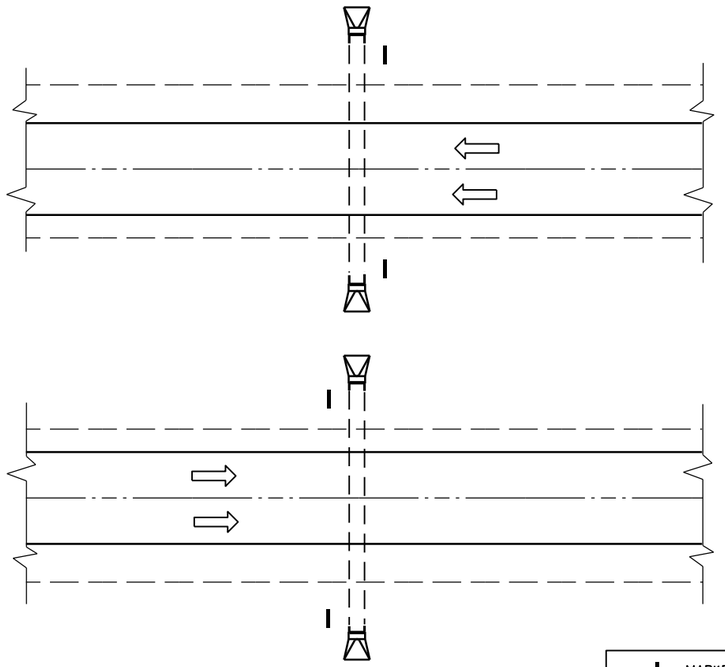
APPROVED

1/25/2011
DATE

/S/ Thomas N. Nothdurft
STATE TRAFFIC ENGINEER

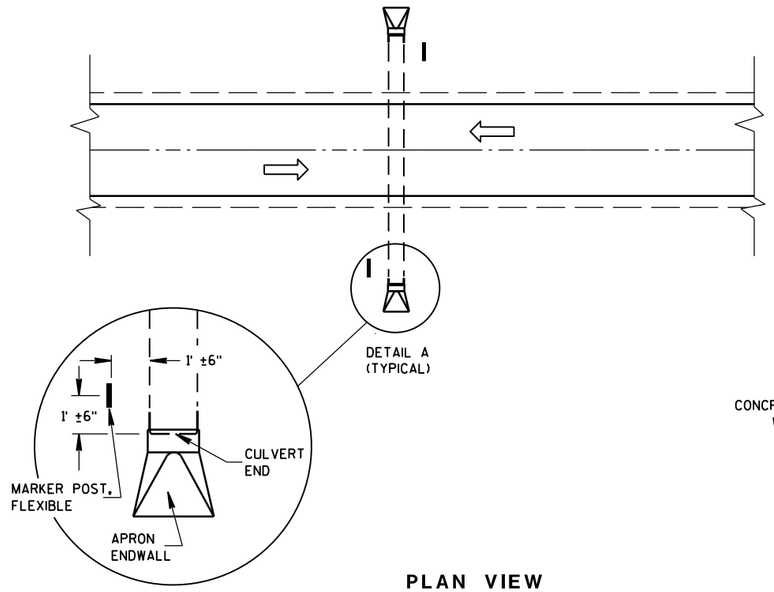
FHWA

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S.D.D. 15 A 2-7



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

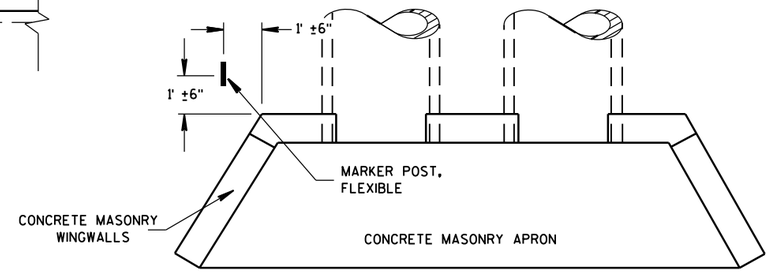
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

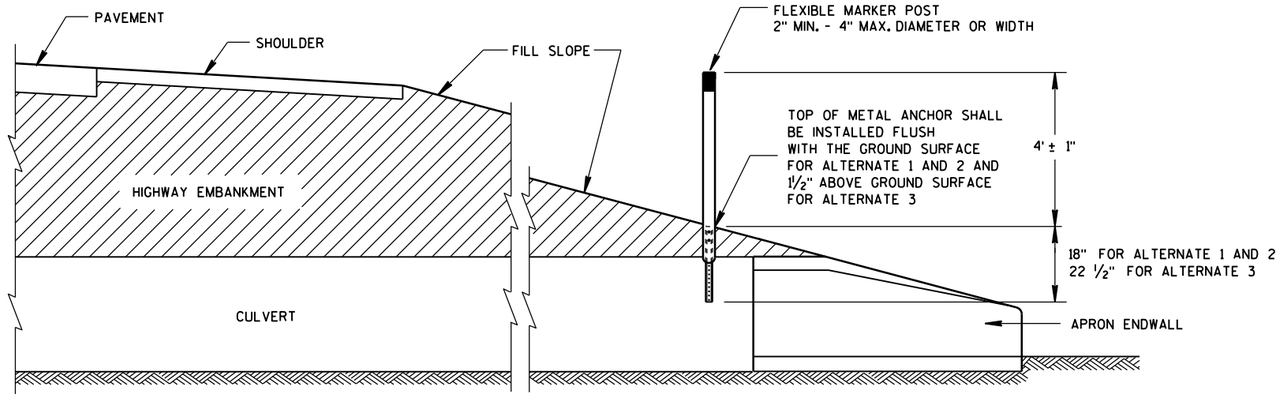
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

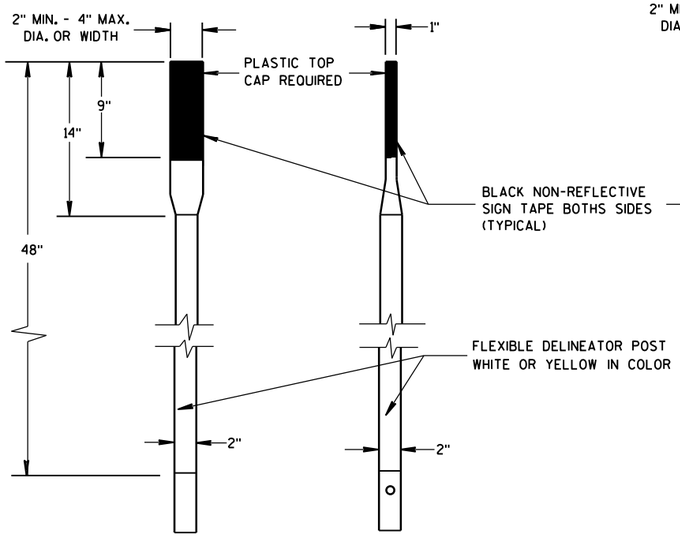
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

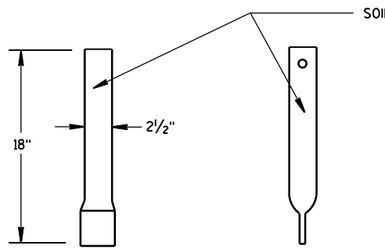
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S.D.D. 15 A 3-2a

6

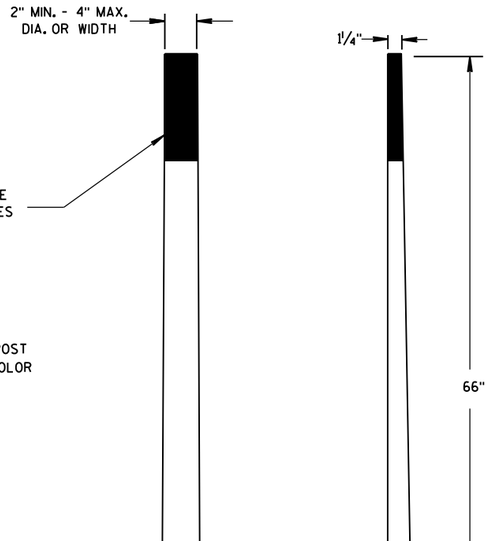
S.D.D. 15 A 3-2a





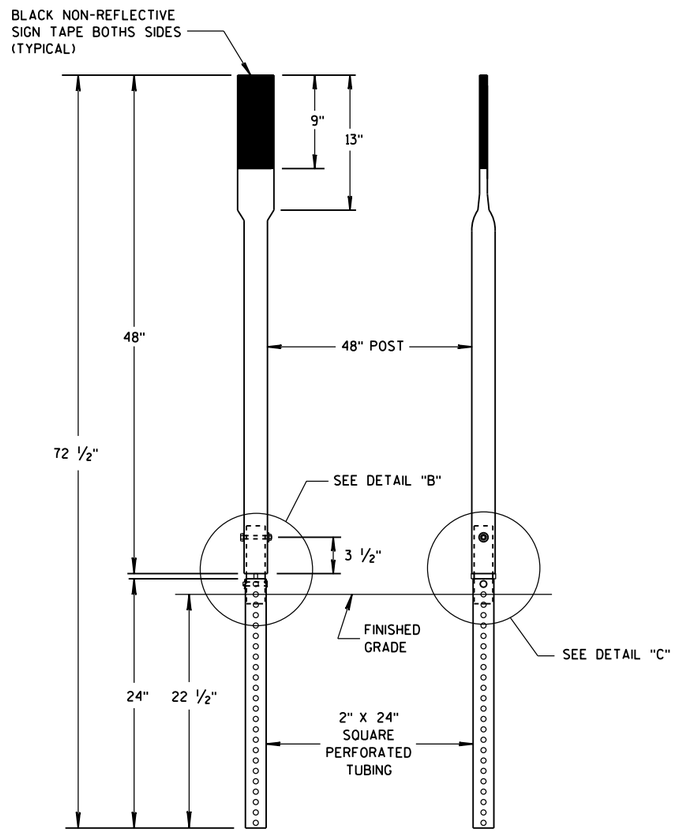
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

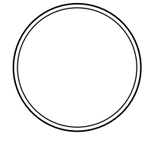
ALTERNATE 2



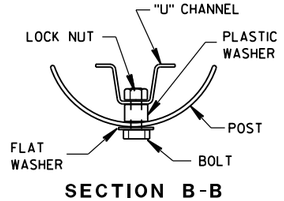
FRONT VIEW SIDE VIEW

ALTERNATE 3

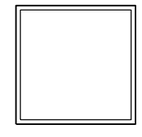
FLEXIBLE MARKER POSTS



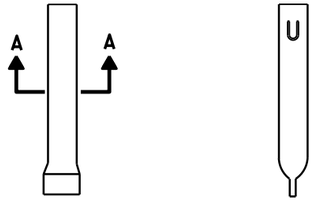
SECTION A-A



SECTION B-B

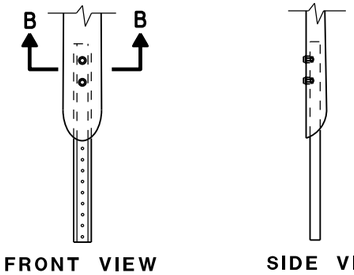


SECTION C-C



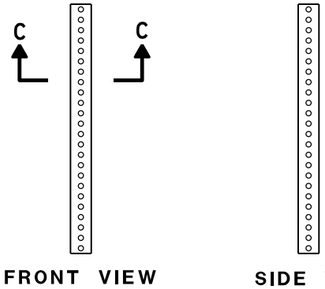
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

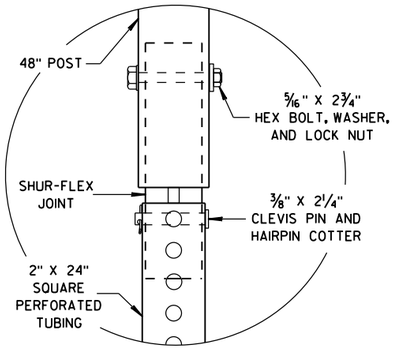
ALTERNATE 2



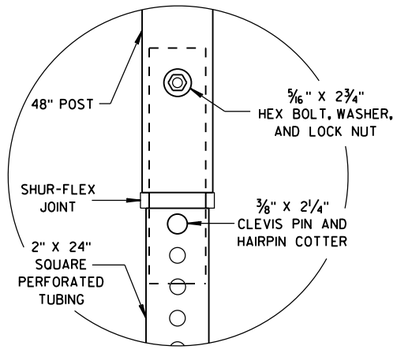
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

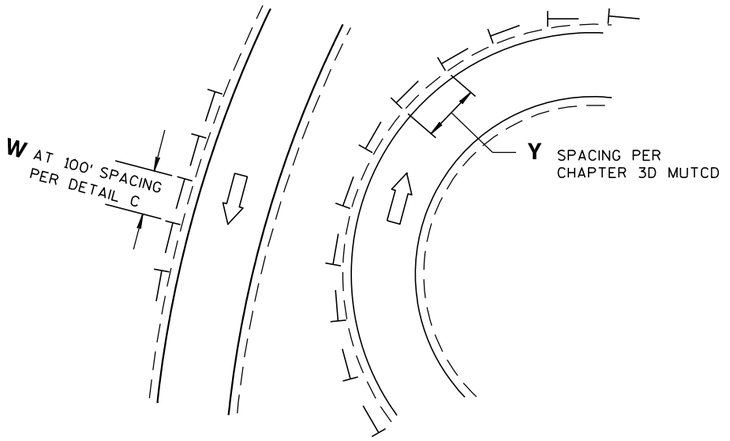
S.D.D. 15 A 3-2b

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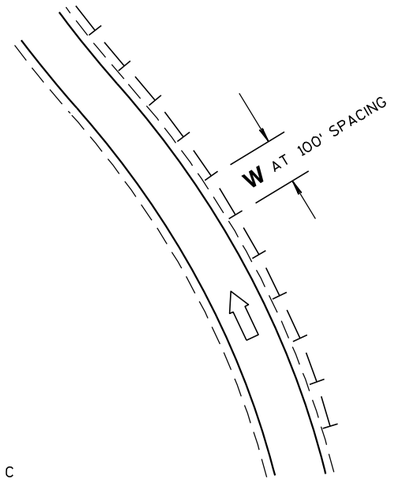
S.D.D. 15 A 3-2b

GENERAL NOTES

* USE DOUBLE DELINEATOR ALONG ACCELERATION-DECELERATION LANES AND TAPERS. USE SINGLE DELINEATOR WHEN RAMP PAVEMENT IS FULL WIDTH.



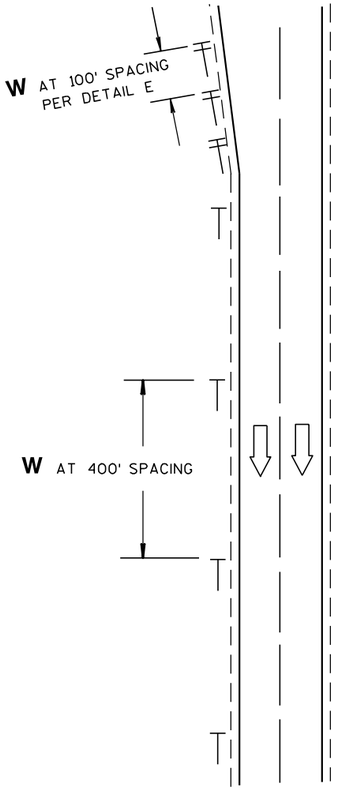
DETAIL A
DELINEATOR LAYOUT AT CURVED RAMP



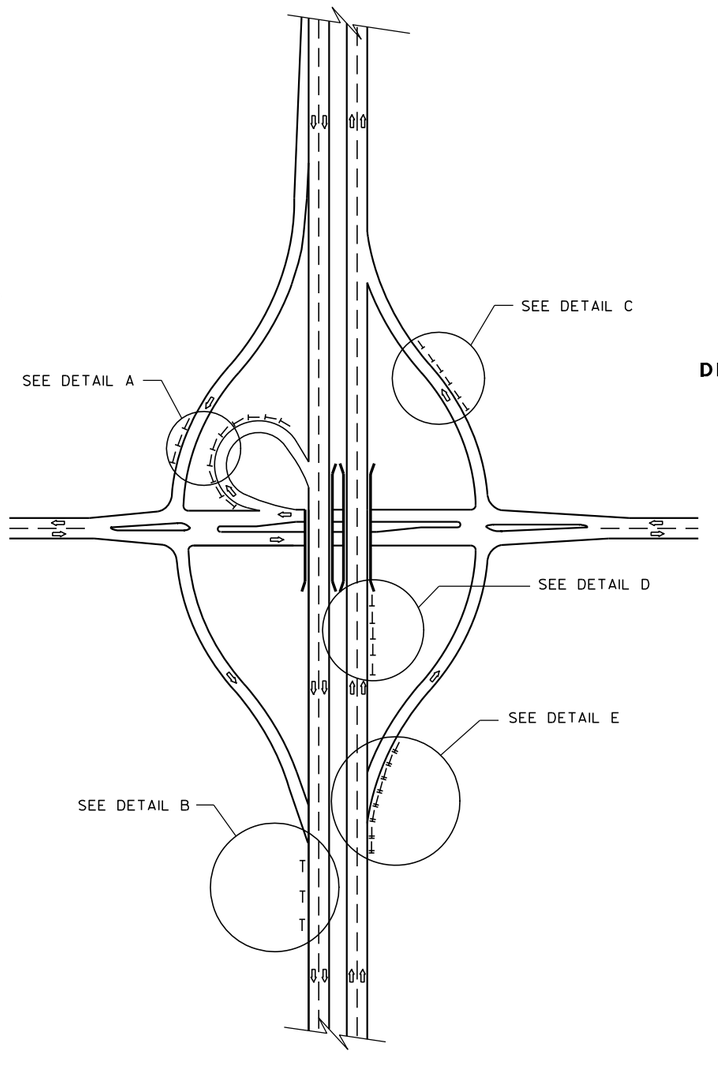
DETAIL C
DELINEATOR LAYOUT ALONG RAMP

LEGEND

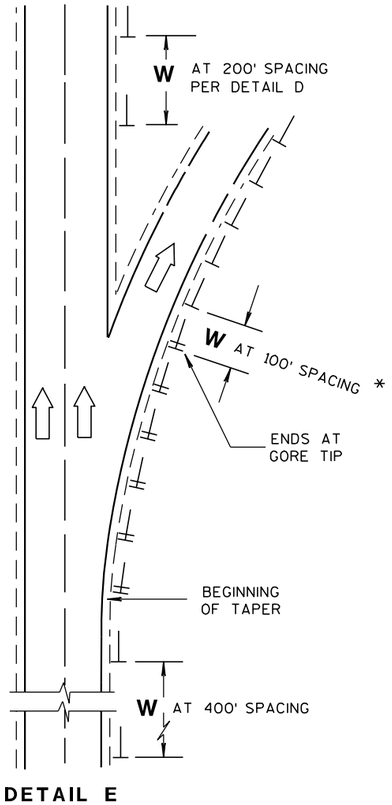
- DIRECTION OF TRAFFIC FLOW
- SINGLE DELINEATOR
- DOUBLE DELINEATOR
- W — WHITE
- Y — YELLOW



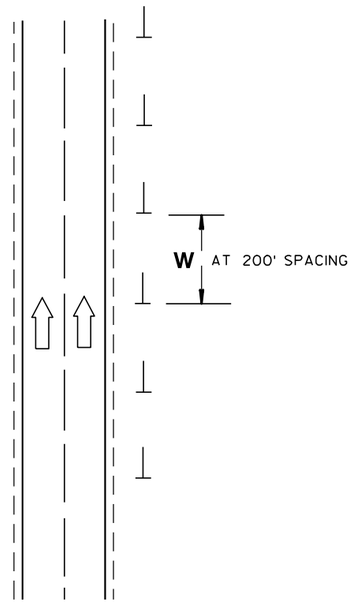
DETAIL B
DELINEATOR LAYOUT ALONG MAINLINE



DELINEATOR LAYOUT



DETAIL E
DELINEATOR LAYOUT FOR ACCELERATION - DECELERATION LANES AND TAPERS AT RAMPS



DETAIL D
DELINEATOR LAYOUT BETWEEN INTERCHANGE RAMPS

DELINEATOR LAYOUT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/5/09 DATE
/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER
FHWA

6

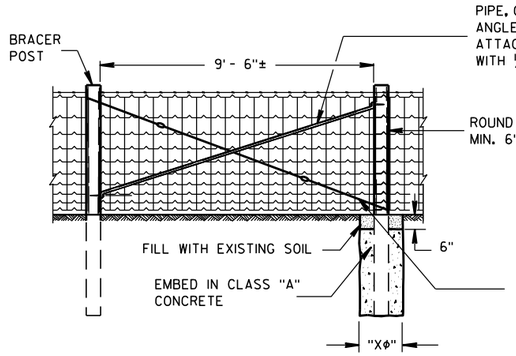
S.D.D. 15 A 6-2

6

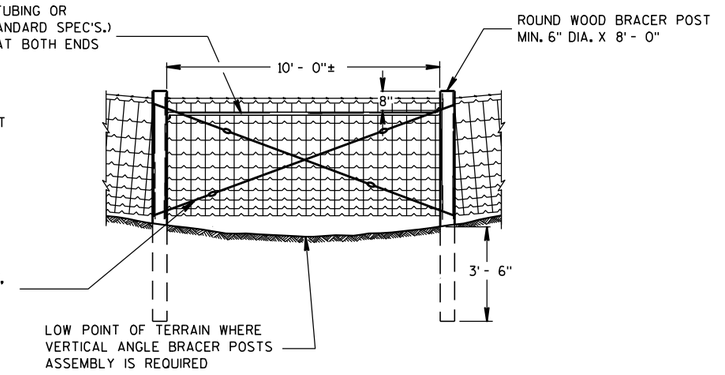
S.D.D. 15 A 6-2

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

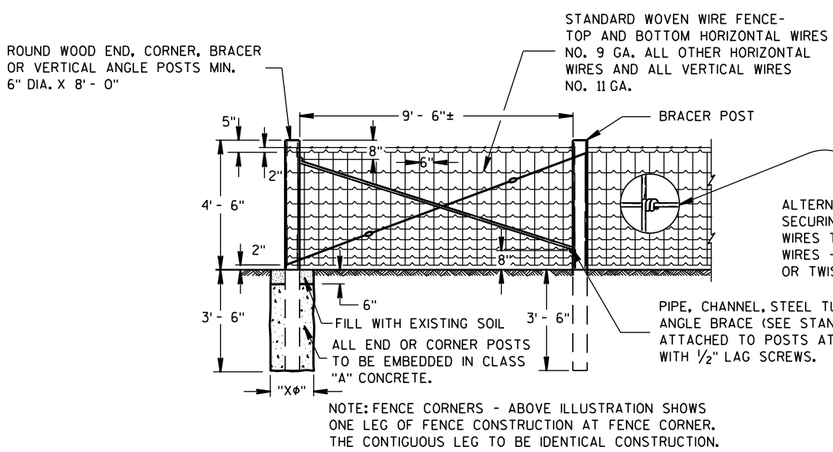
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

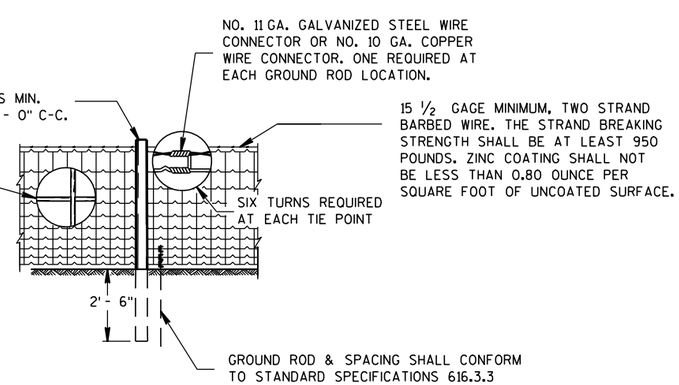
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

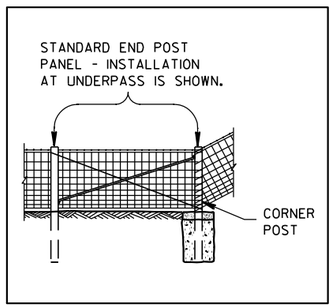
END OR CORNER POSTS ASSEMBLY



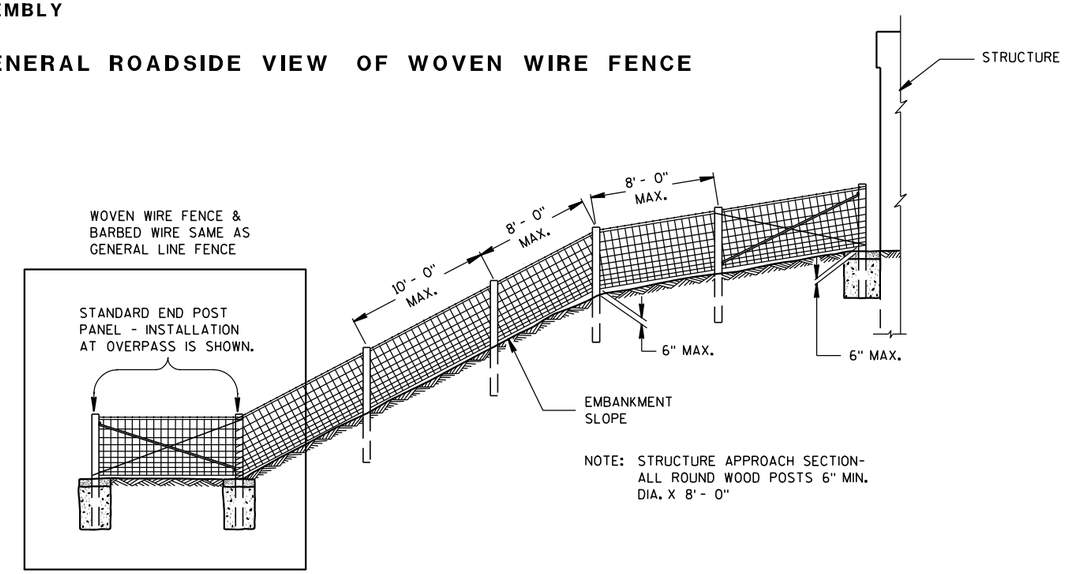
ALTERNATE METHODS OF SECURING VERTICAL STAY WIRES TO HORIZONTAL WIRES - SECURELY WELDED OR TWISTED.

LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

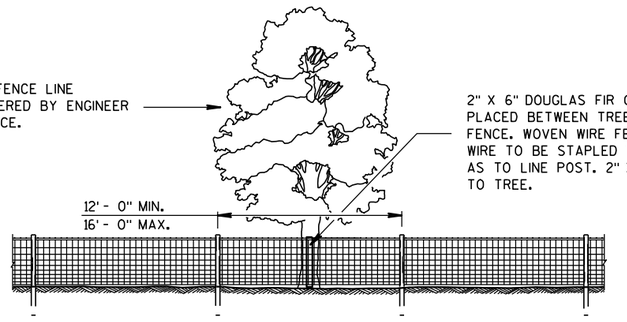
S.D.D. 15 B 1-8a

6

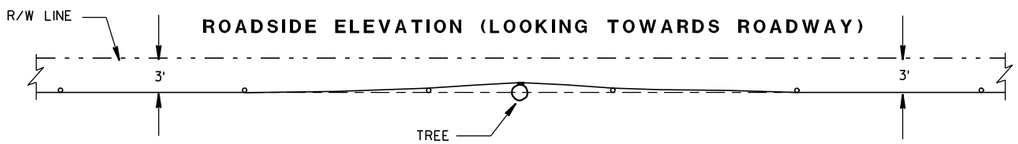
S.D.D. 15 B 1-8a

NOTE: TREE IN NORMAL FENCE LINE SPECIFICALLY ORDERED BY ENGINEER TO REMAIN IN PLACE.

2" X 6" DOUGLAS FIR OR SO. YELLOW PINE PLACED BETWEEN TREE AND WOVEN WIRE FENCE. WOVEN WIRE FENCE AND BARBED WIRE TO BE STAPLED TO 2" X 6" LIKE AS TO LINE POST. 2" X 6" NOT FASTENED TO TREE.

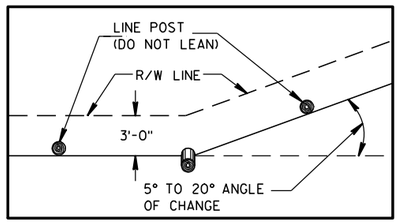


ROADSIDE ELEVATION (LOOKING TOWARDS ROADWAY)

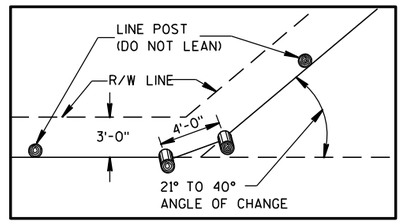


PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



PLAN VIEW
SINGLE POST CORNER

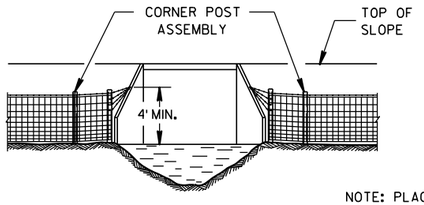


PLAN VIEW
DOUBLE POST CORNER

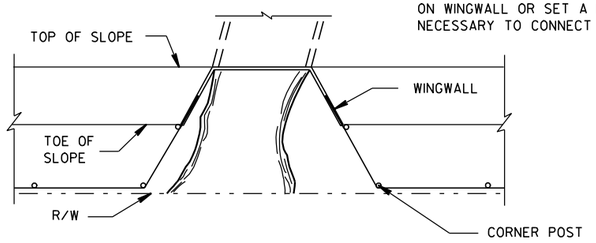
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

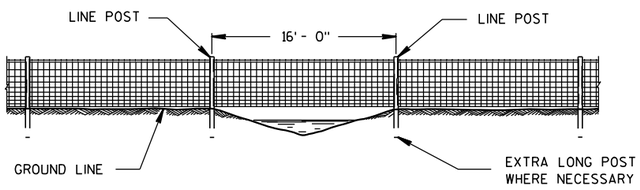
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



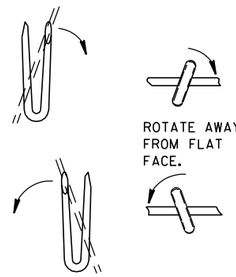
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



FENCE INSTALLATION TO WINGWALLS

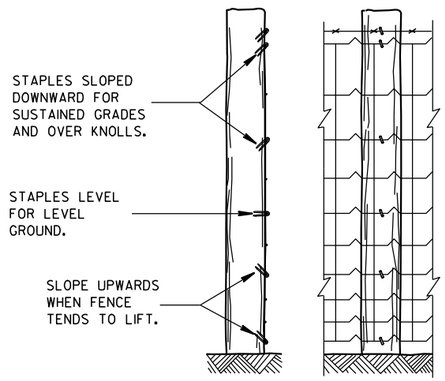


FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH



LINE POST

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.

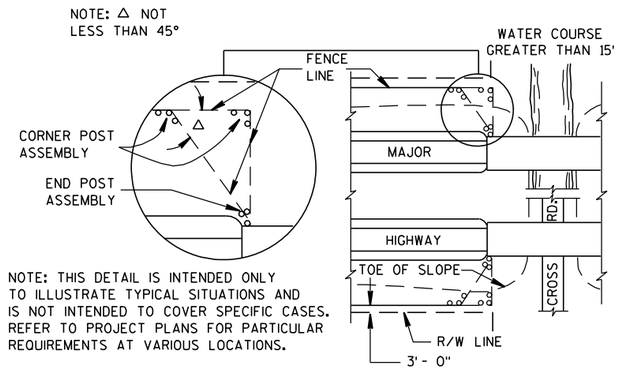


END ELEVATION

FARM SIDE ELEVATION

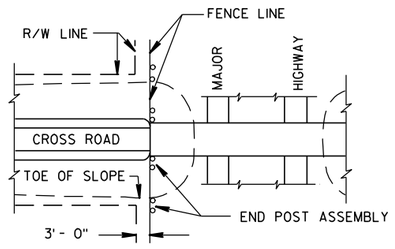
FENCE MOUNTING DETAIL

NOTE: △ NOT LESS THAN 45°



NOTE: THIS DETAIL IS INTENDED ONLY TO ILLUSTRATE TYPICAL SITUATIONS AND IS NOT INTENDED TO COVER SPECIFIC CASES. REFER TO PROJECT PLANS FOR PARTICULAR REQUIREMENTS AT VARIOUS LOCATIONS.

PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

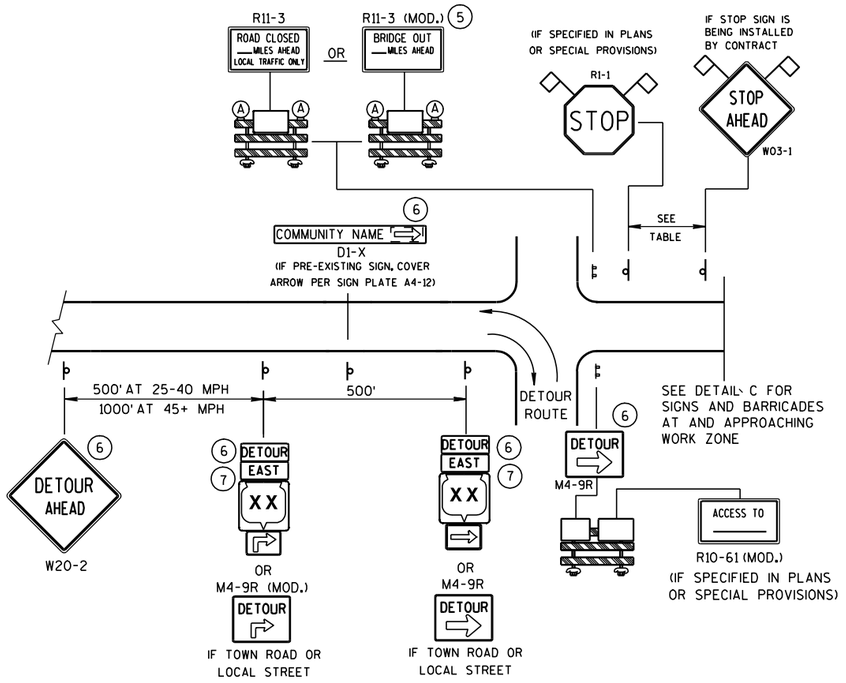
FENCE LOCATION AT STRUCTURES

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/4/2008
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS [illegible]
ENGINEER
FHWA

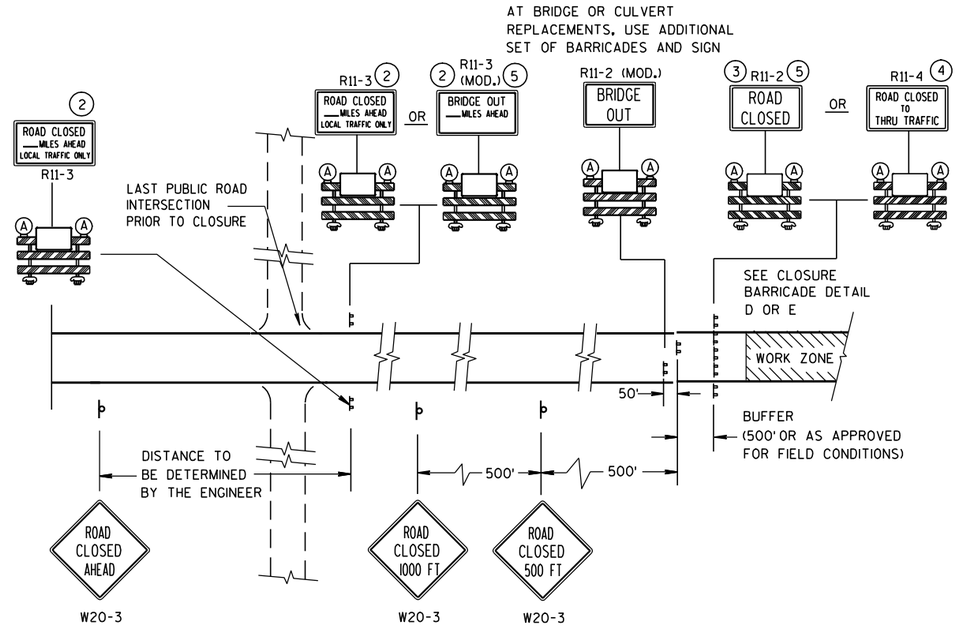
6
S.D.D. 15 B 1-8b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

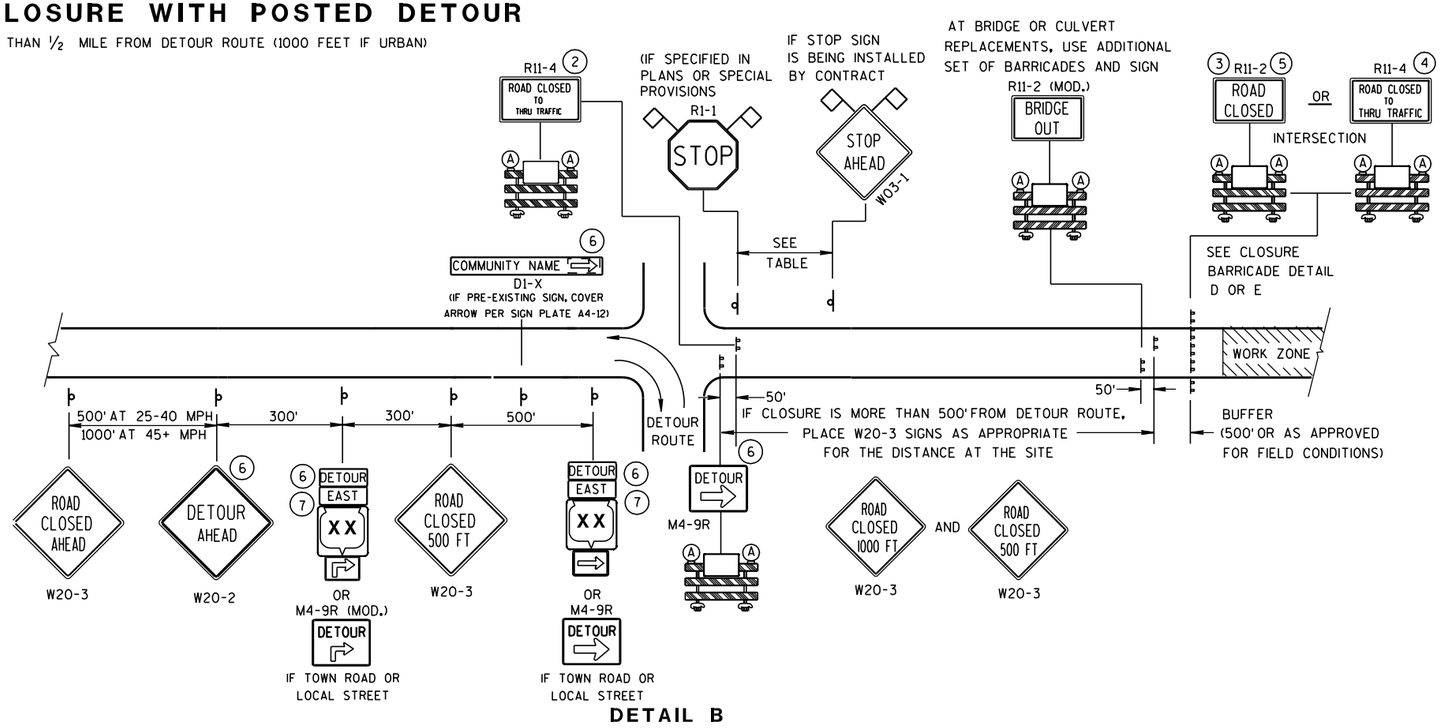


DETAIL C

MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)



DETAIL B

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

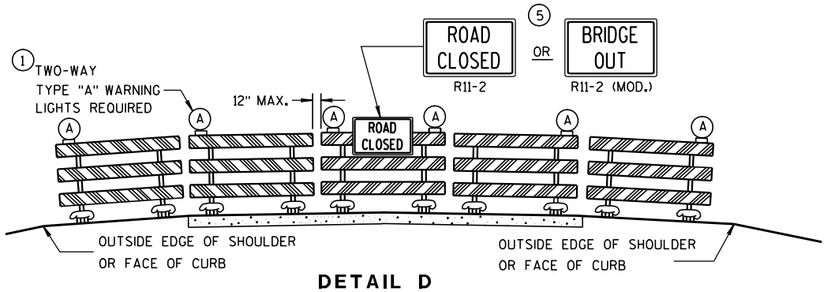
- POST MOUNTED SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK ZONE
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1; M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

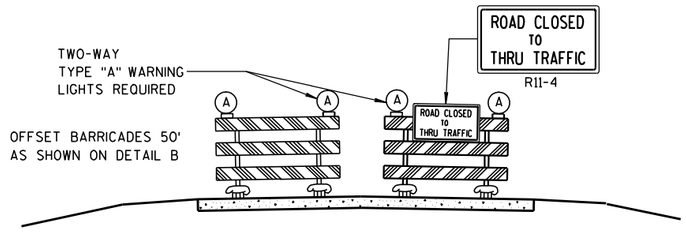
S.D.D. 15 C 2-4a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/16/03
DATE

/S/ Thomas N. N[illegible]
CHIEF SIGNS AND MAR[illegible]INEER

FHWA

6

S.D.D. 15 C 2-4b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

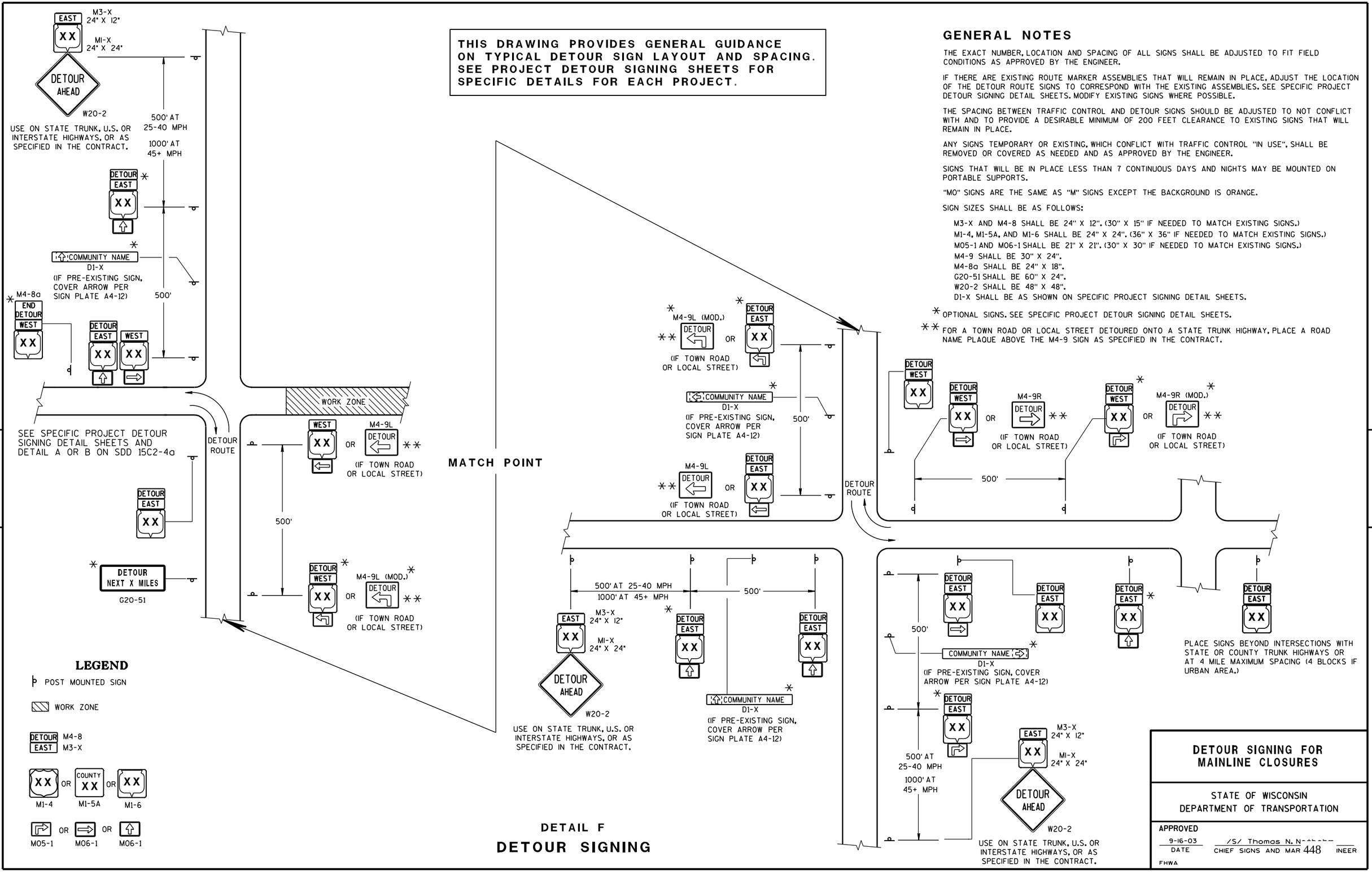
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
M4-9 SHALL BE 30" X 24".
M4-8a SHALL BE 24" X 18".
G20-51 SHALL BE 60" X 24".
W20-2 SHALL BE 48" X 48".
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



DETAIL F

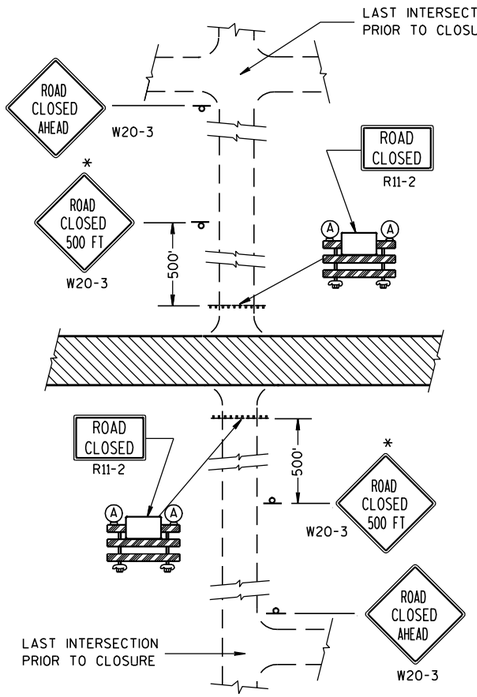
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

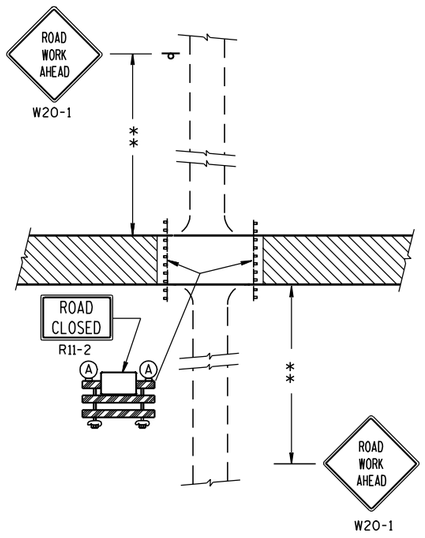
APPROVED
9-16-03 DATE
/S/ Thomas N. Nabbefeld CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

6 S.D.D. 15 C 2-4c



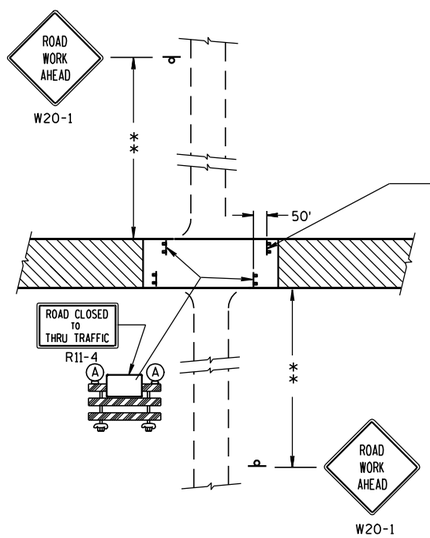
DETAIL 1

(NO ACCESS TO PROJECT)



DETAIL 2

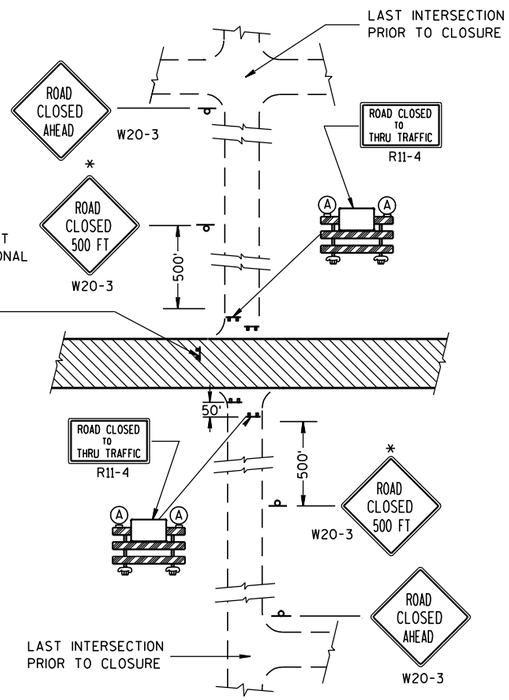
(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).





DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

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THE REFLECTIVE SHEETING USED ON R11-2, R11-3 AND R11-4 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- POST MOUNTED WARNING SIGN
- TYPE III BARRICADES
- (A) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

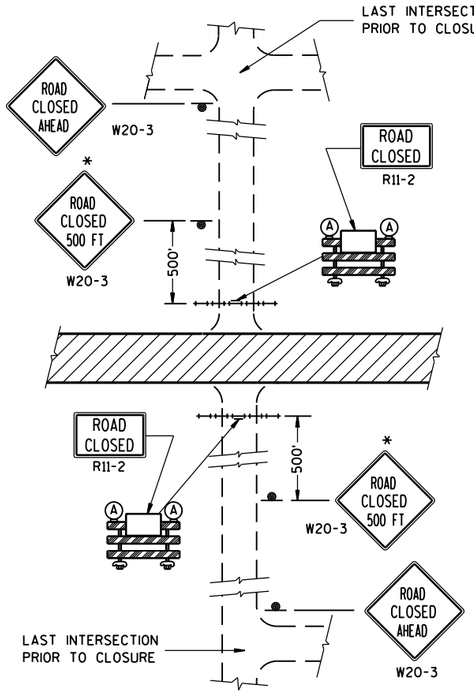
9-16-03 DATE

/S/ Thomas N. N[illegible] CHIEF SIGNS AND MAR[illegible] INEER

FHWA

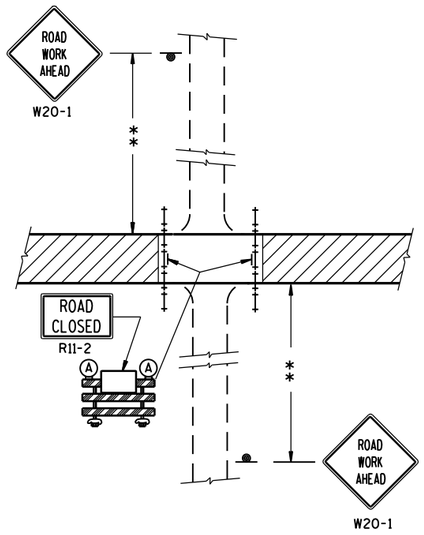
6

S.D.D. 15 C 3-1



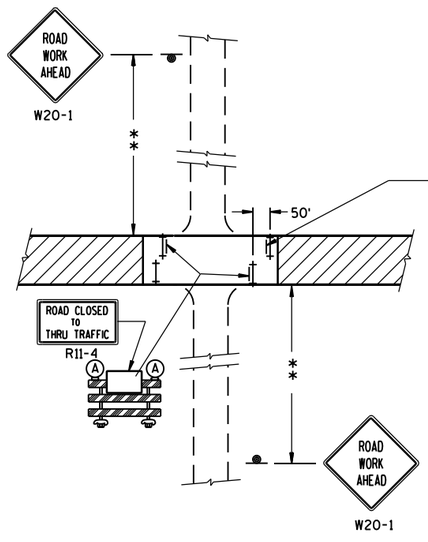
DETAIL 1

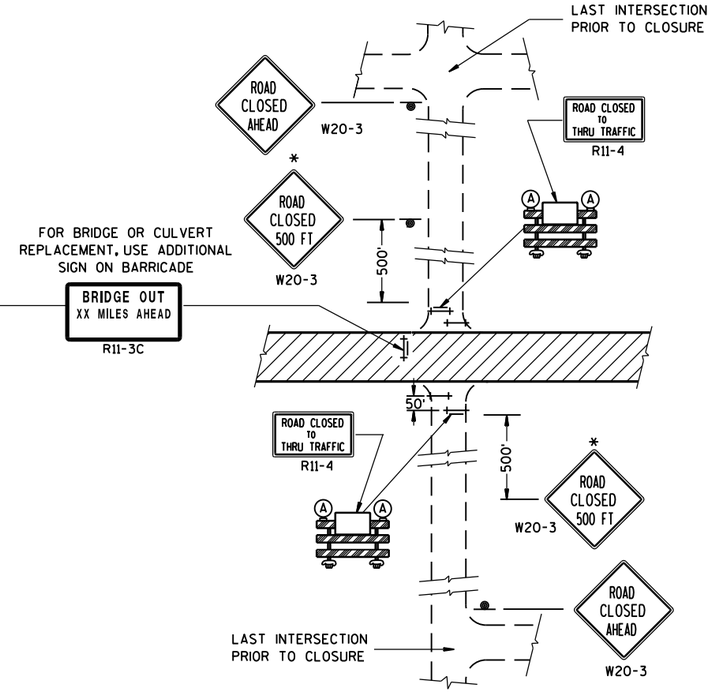
(NO ACCESS TO PROJECT)



DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).





DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).

DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

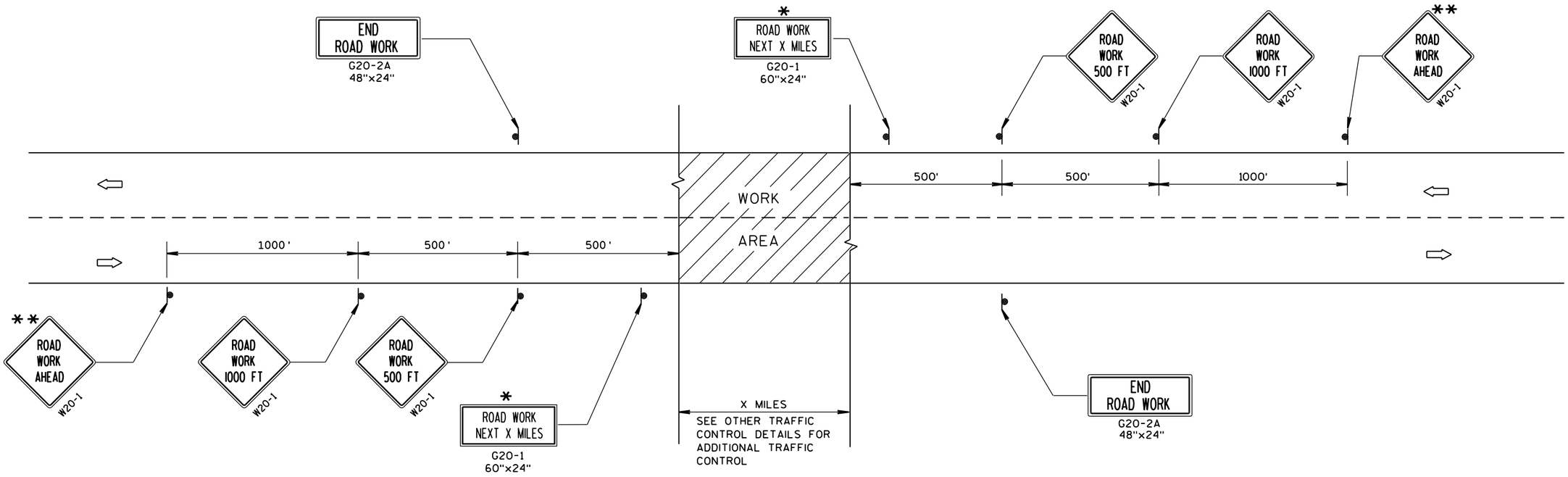
APPROVED
8/2013
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 3-2

6

S.D.D. 15 C 3-2



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

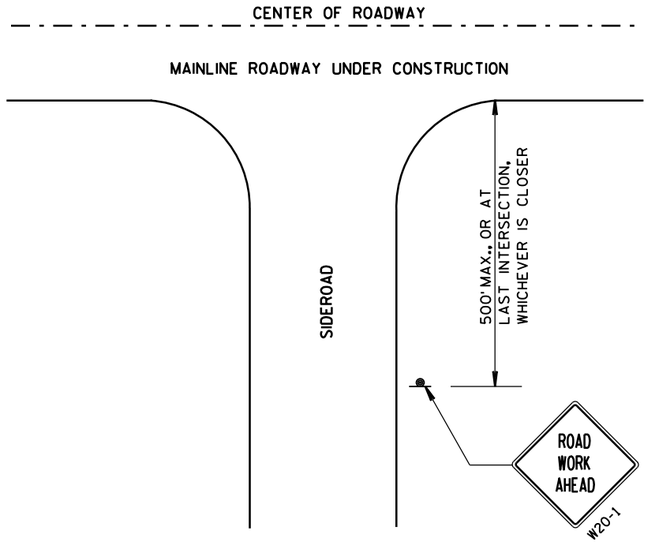
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1 "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

SIGN

FHWA

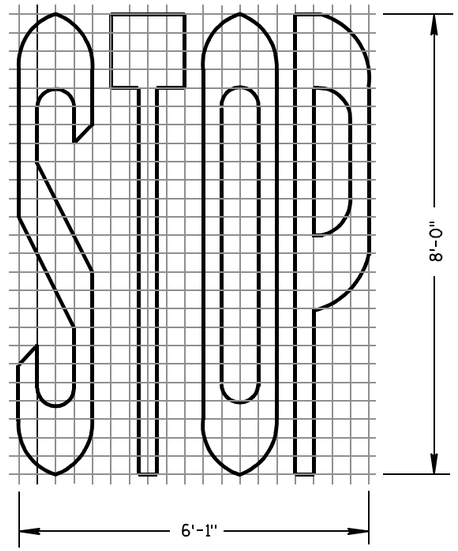
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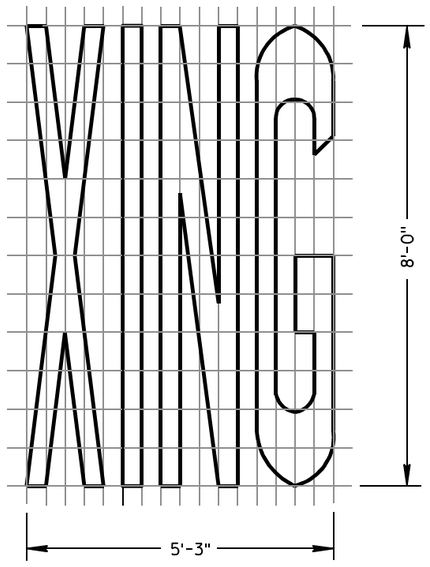
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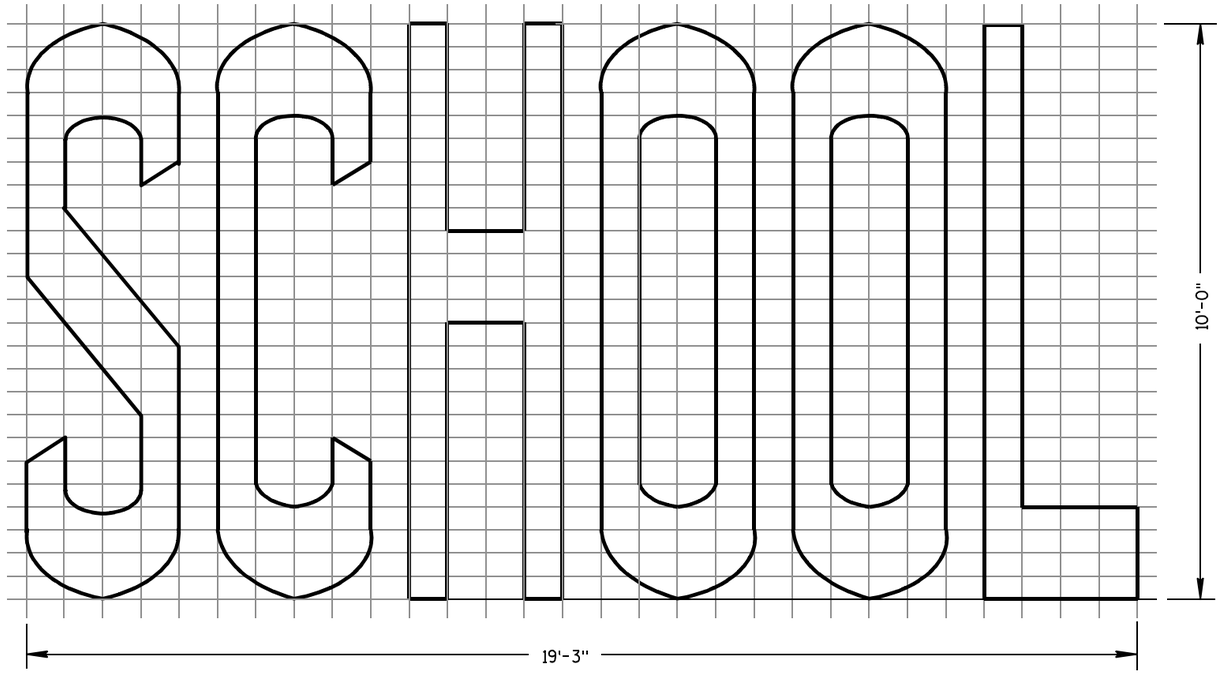
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

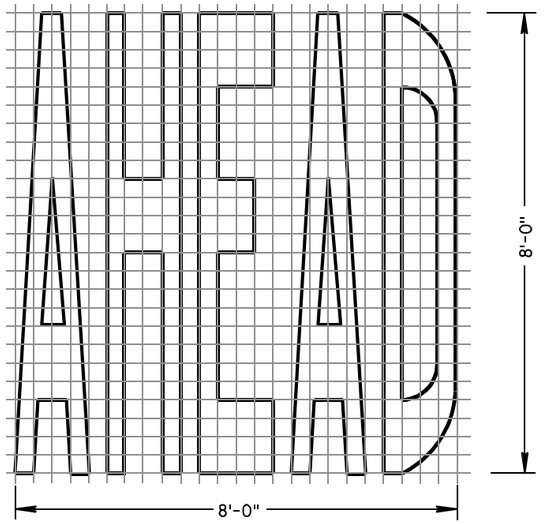
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

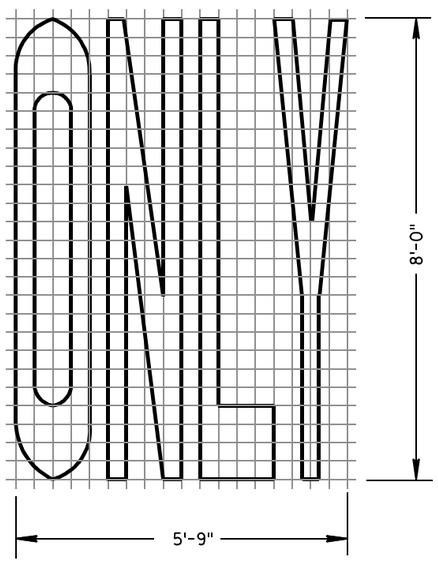


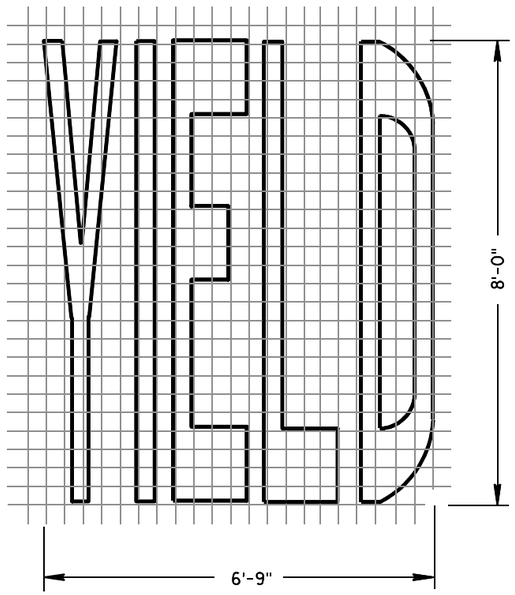


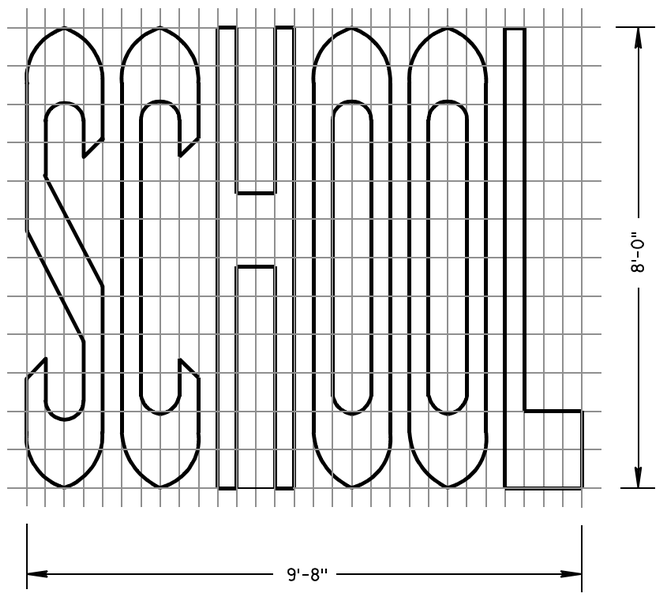


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

IGN

6

S.D.D. 15 C 7-12b

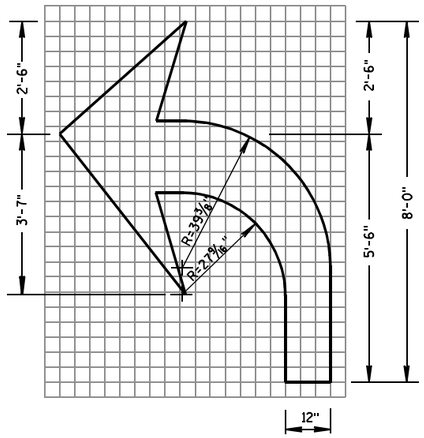
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S.D.D. 15 C 7-12b

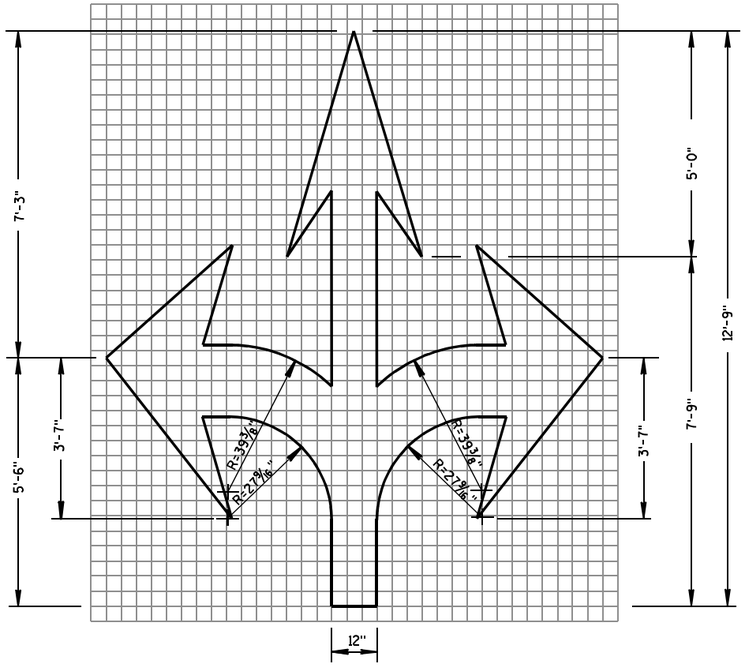
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

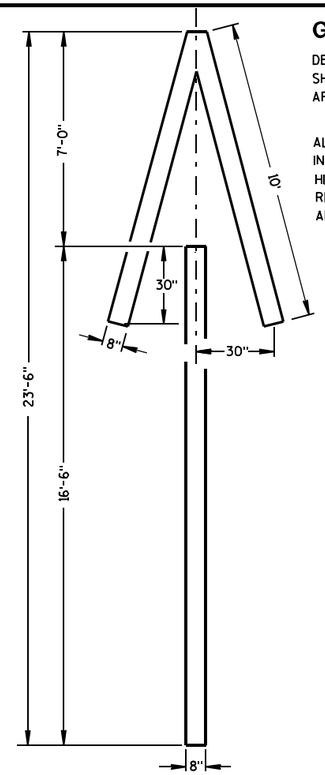
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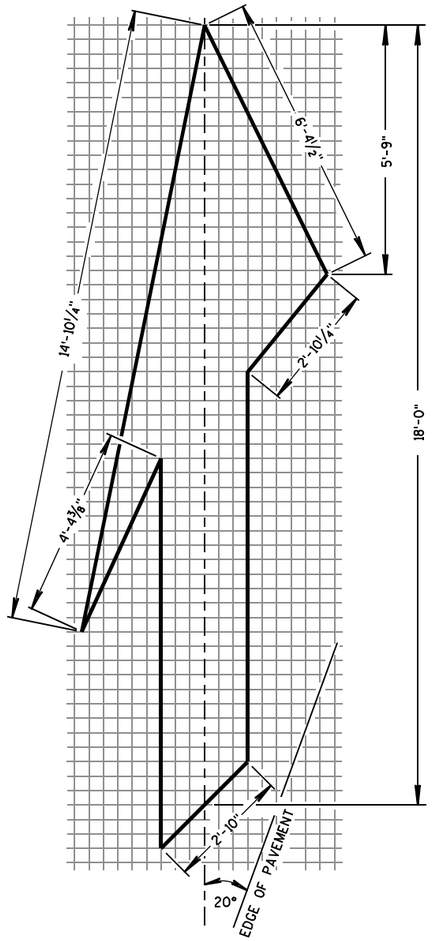
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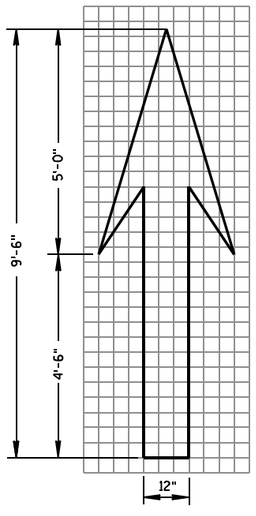
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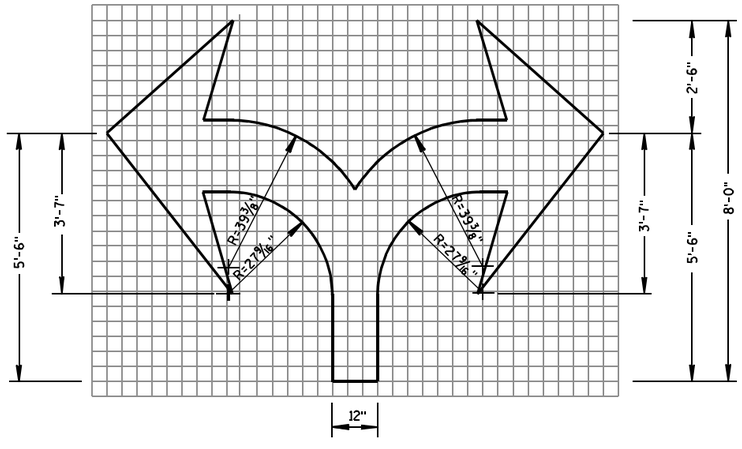
TYPE 4



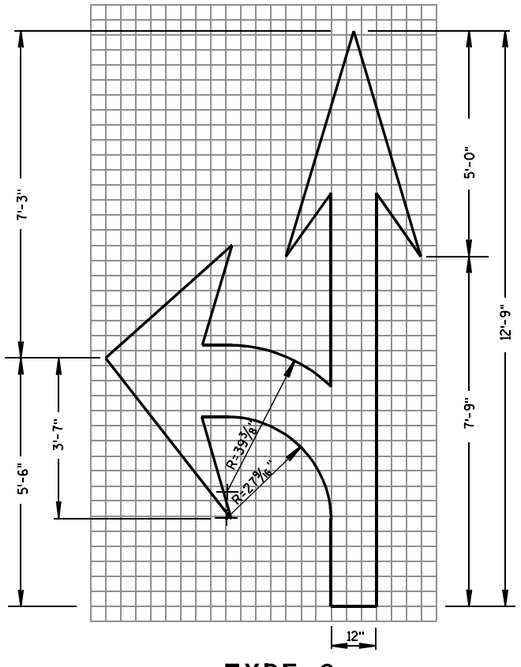
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

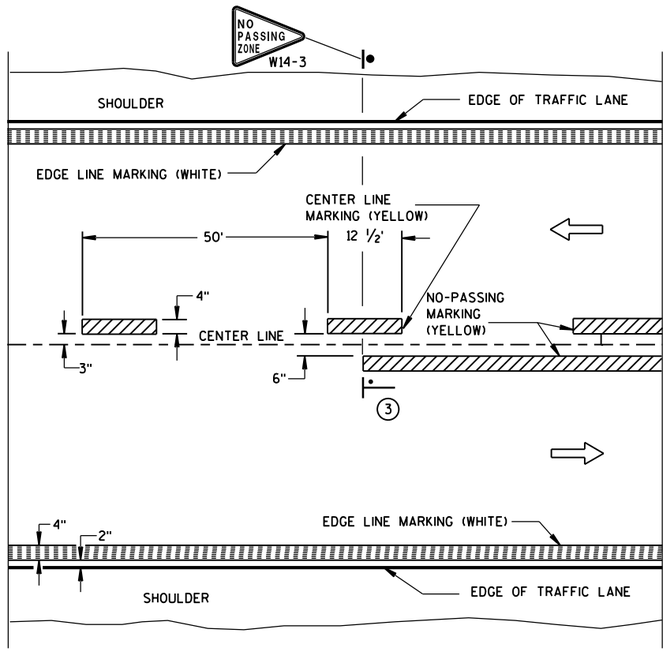
FHWA

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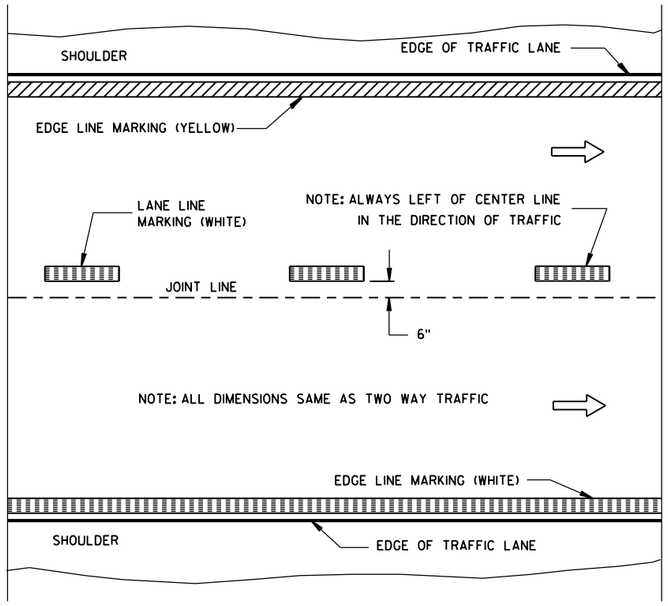
S.D.D. 15 C 7-12c

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S.D.D. 15 C 7-12c

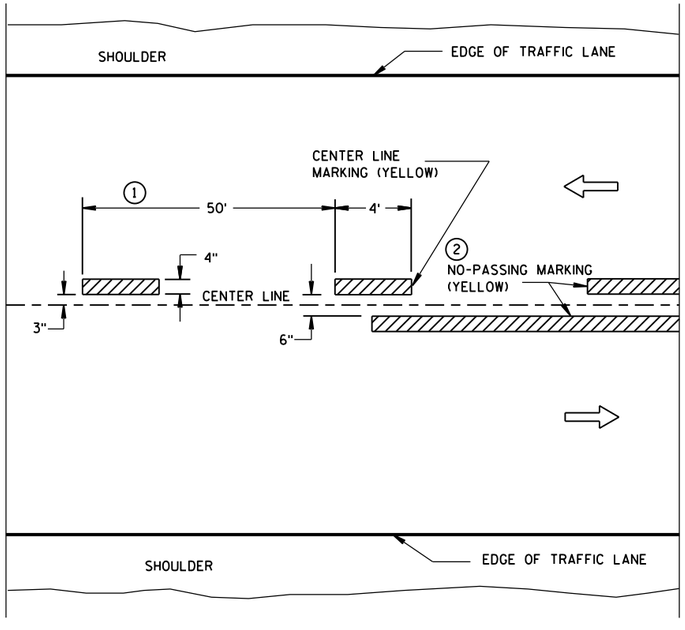


TWO WAY TRAFFIC

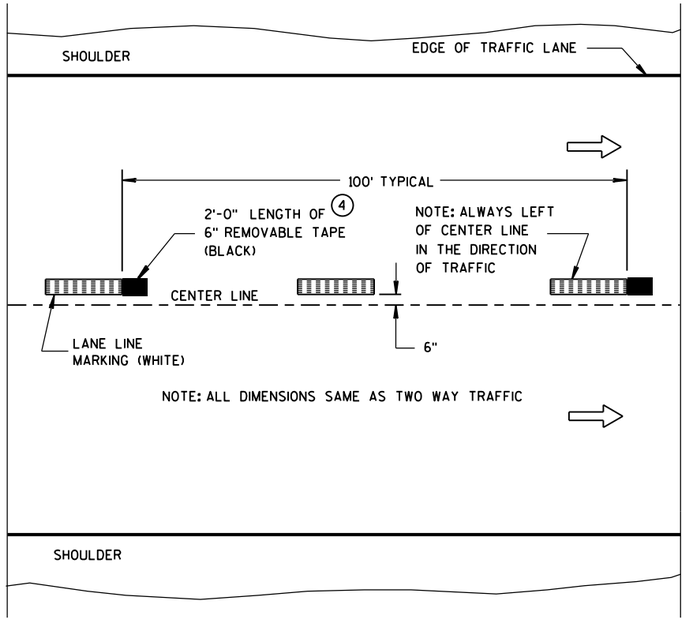


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

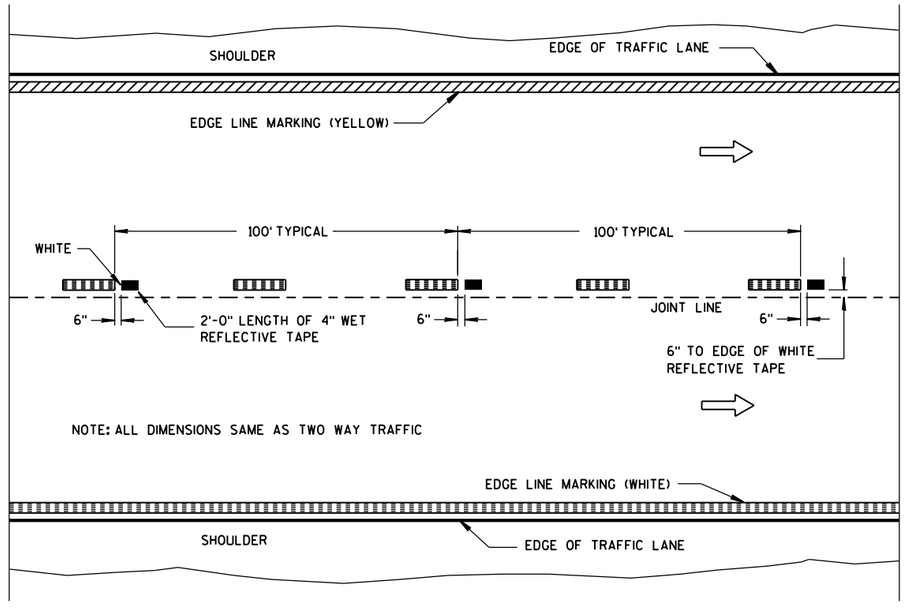
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

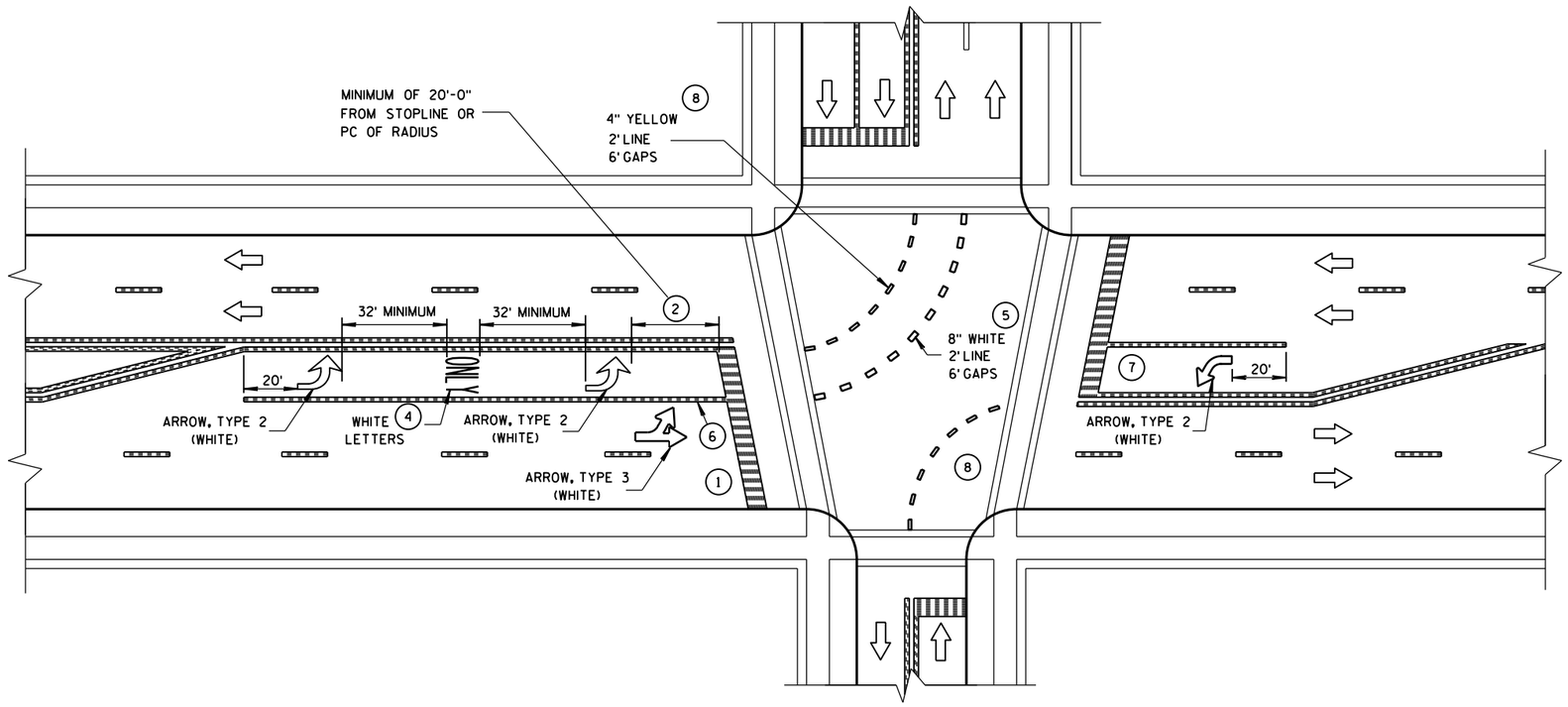
APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

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S.D.D. 15 C 8-16a

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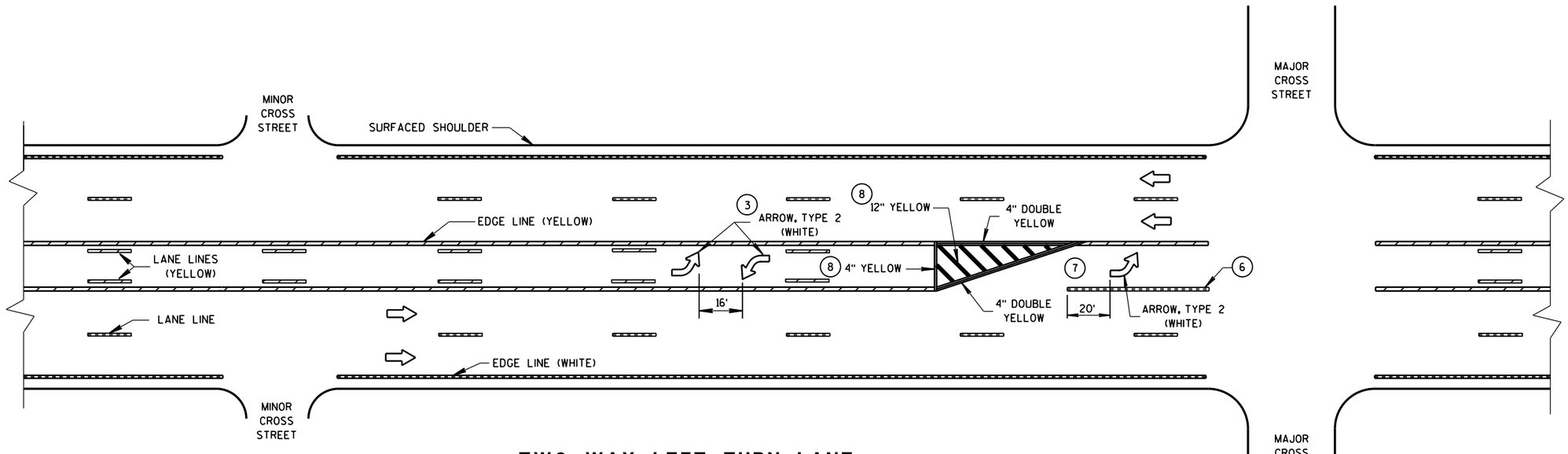
S.D.D. 15 C 8-16a



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

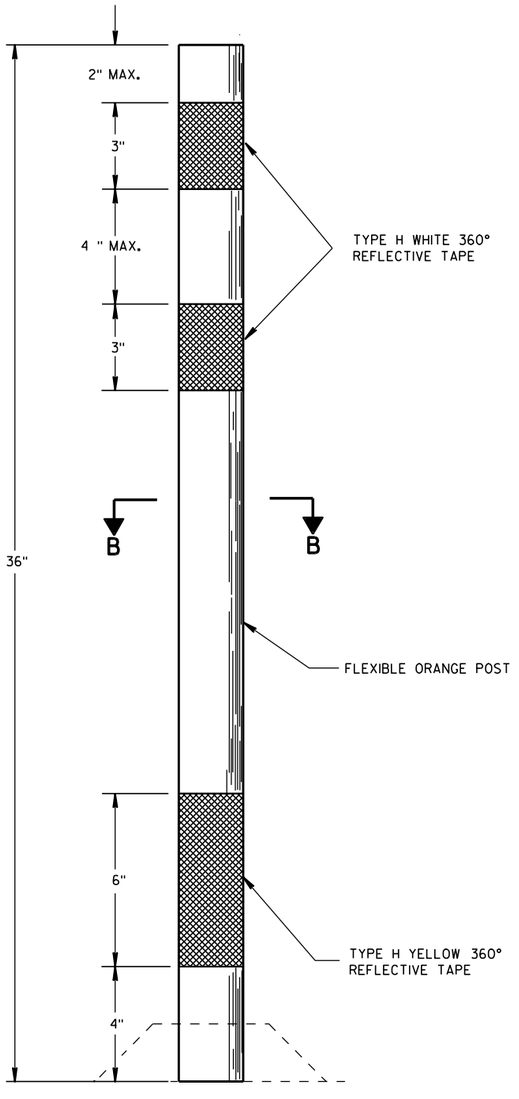
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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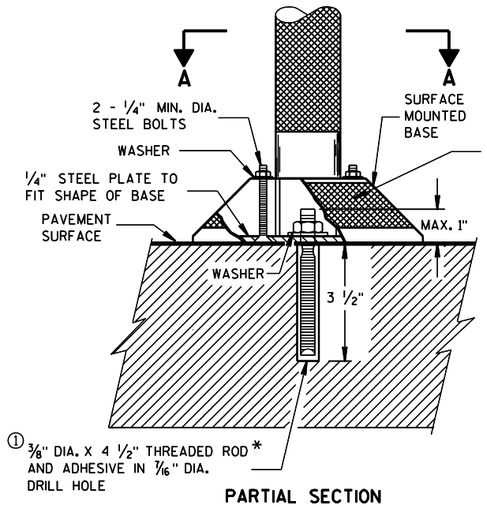
S.D.D. 15 C 8-16e

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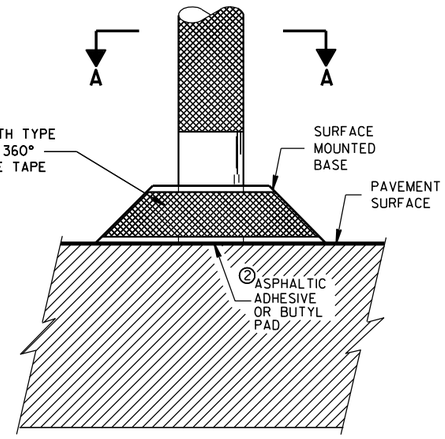
S.D.D. 15 C 8-16e



FLEXIBLE TUBULAR MARKER POST



PARTIAL SECTION TO SHOW BOLTS



POST BASES ON NEW OR EXISTING PAVEMENT

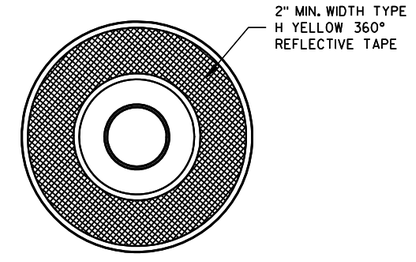
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

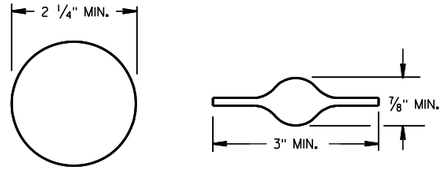
① THREADED ROD SHALL BE MACHINED DOWN TO 0.280 INCH DIA. 1 1/4 INCHES FROM THE TOP.

② THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.



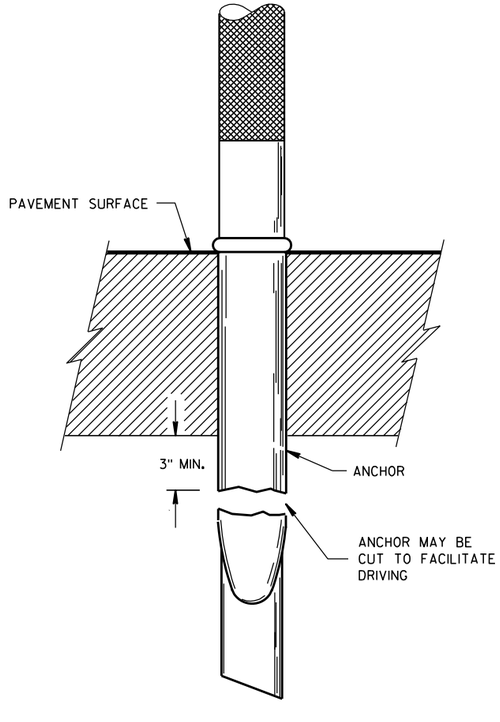
SECTION A-A

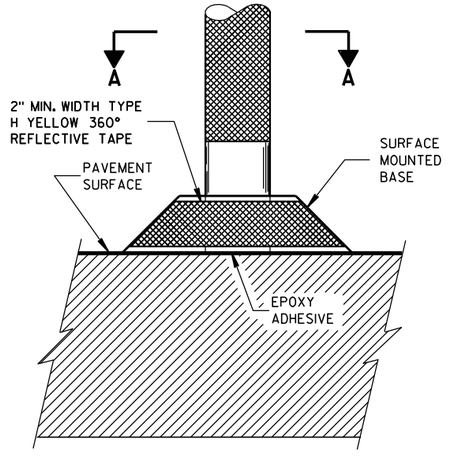
SURFACE MOUNTED BASE



SECTION B-B

ALTERNATIVE SHAPES





POST ANCHOR AND BASE ON PAVEMENT WHICH WILL BE REMOVED

FLEXIBLE TUBULAR MARKER POST, ANCHOR & BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/17/94 DATE

/S/ Chester J. [illegible] DIRECTOR, OFFICE O

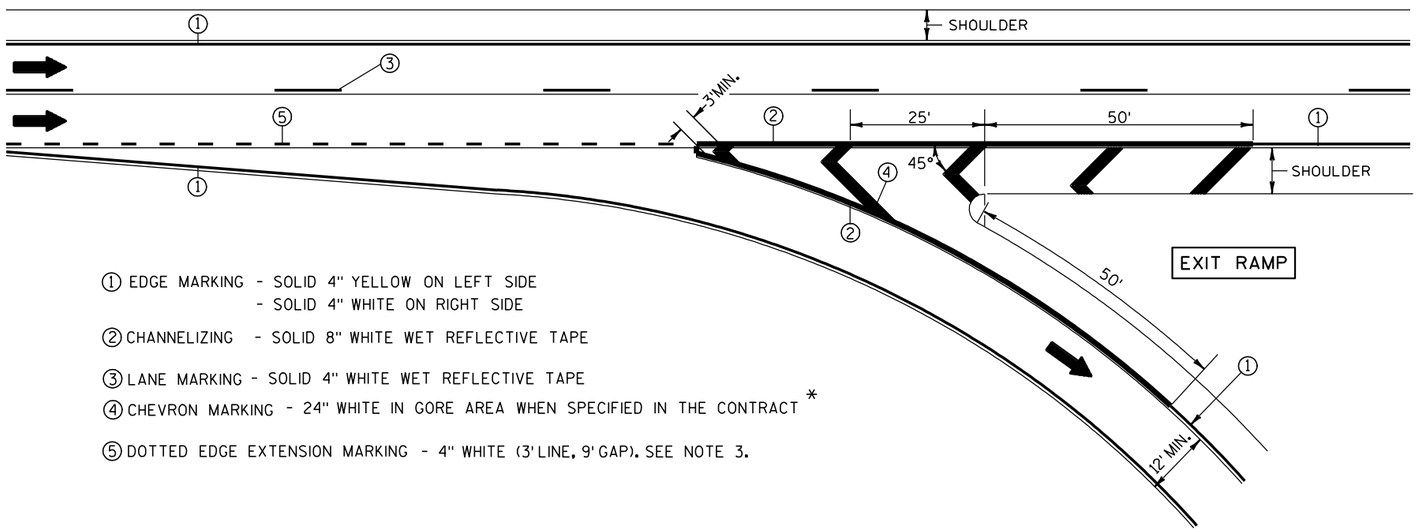
FHWA

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S.D.D. 15 C 11-5

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S.D.D. 15 C 11-5



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

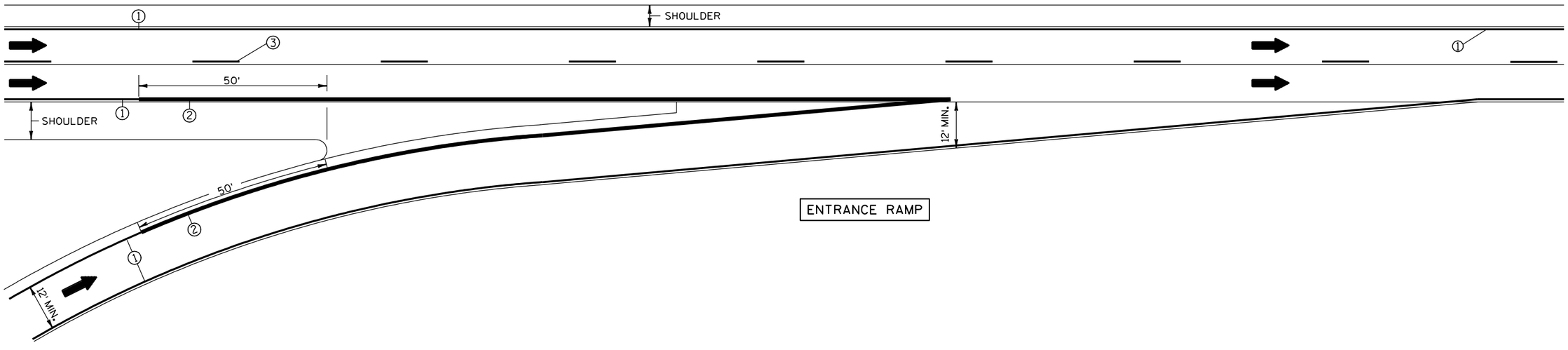
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

3. 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE-GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



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S.D.D. 15 C 31-1a

S.D.D. 15 C 31-1a

PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA



W057-52
36"x24"

INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1 FOOT LESS THAN AVAILABLE WIDTH (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET).



LOCATED 500 FEET IN ADVANCE OF R2-1 SIGN AND 500 FEET BEYOND THE "ROAD WORK 1 MILE" SIGN.



R2-1
48"x60"
(BLACK AND WHITE)

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.

* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.

GENERAL NOTES

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

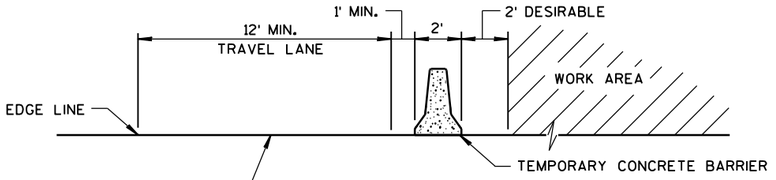
(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUM TAPER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

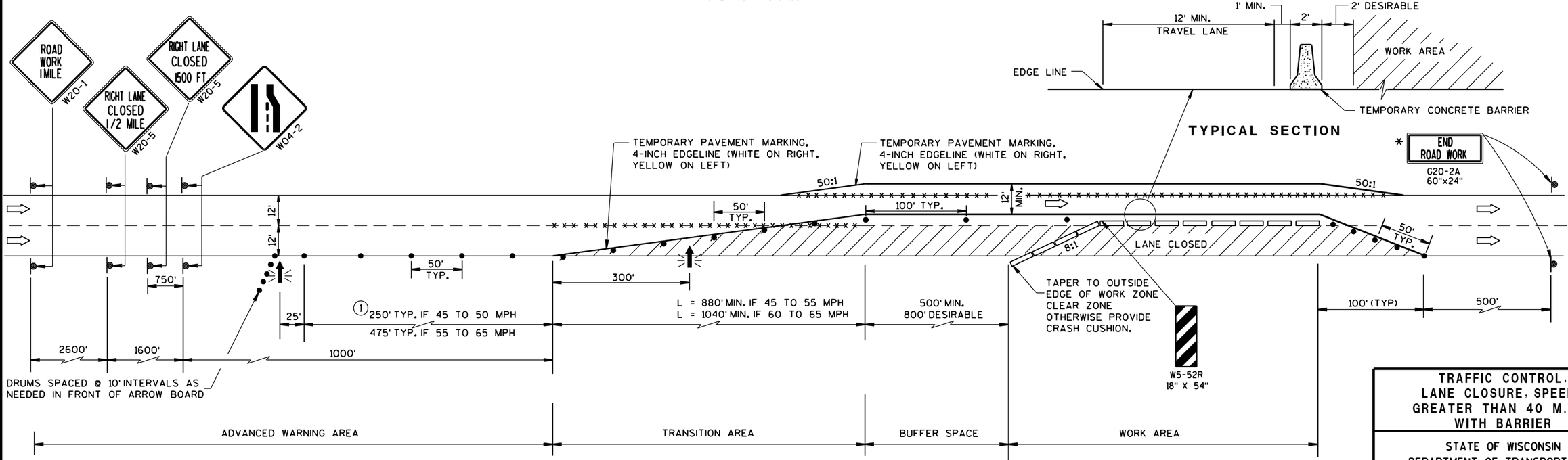
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.



TYPICAL SECTION



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

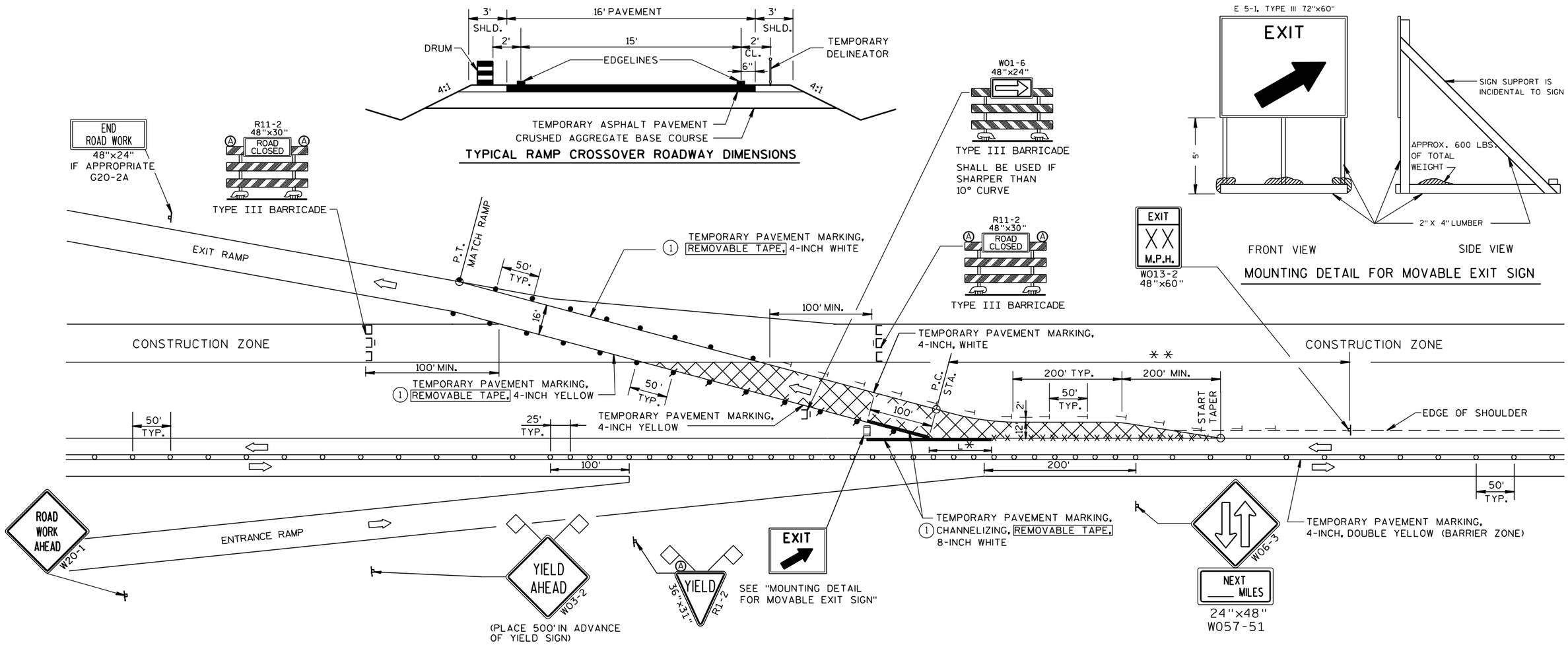
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER — SIGN
FHWA

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S.D.D. 15 D 3-2

6

S.D.D. 15 D 3-2



LEGEND

- 8' TYPE III BARRICADE WITHOUT/WITH ATTACHED SIGN
- POST WITH ATTACHED SIGN
- DRUM WITH WARNING LIGHT (TYPE C)
- DRUM
- TEMPORARY DELINEATOR - WHITE (STEEL POST W/SINGLE DELINEATOR)
- Ⓐ WARNING LIGHT, TYPE A
- TEMPORARY CROSSOVER ASPHALTIC PAVEMENT
- REMOVING PAVEMENT MARKINGS
- FLEXIBLE TUBULAR MARKER POST AND BASE
- FLAGS, 12" X 12", RED
- DIRECTION OF TRAFFIC

GENERAL NOTES :

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

(1) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER. OTHERWISE TEMPORARY PAVEMENT MARKING MAY BE USED.

TRAFFIC CONTROL FOR RAMP CROSSOVERS ARE TYPICAL FOR ALL CONSTRUCTION PHASES.

* LENGTH L SHALL BE REQUIRED WHEN TANGENT LENGTH OF EXIT RAMP PARALLEL TO MAINLINE EXCEEDS 300'. LENGTH SHALL BE EQUAL TO THE EXIT RAMP TANGENT LENGTH MINUS 300' OR AS APPROVED BY THE ENGINEER AND SHALL CHANGE TO ACCOMODATE PAVING GAPS.

** ADJUST EXIT RAMP SPEED AS NEEDED IN THE FIELD. DISTANCE TO SIGN LOCATION SHALL ALSO BE PLACED ACCORDING TO TABLE.

WORK ALONG EDGES OF RAMP SHALL MAINTAIN A 10 FOOT AREA CLEAR OF PHYSICAL OBSTRUCTIONS SUCH AS DROP OFFS FROM PAVEMENT REMOVAL OR BROKEN CONCRETE CHUNKS DURING PAVEMENT REMOVAL. THESE AREAS SHALL BE LEVELED WITH TEMPORARY FILL TO PROTECT THE TRAVELING PUBLIC WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE CROSSOVER.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

** TABLE FOR ADVANCE WARNING SIGN PLACEMENT DISTANCE

POSTED SPEED MPH	DESIRED SPEED AT CONDITION (MPH)				
	10	20	30	40	50
45	350	300	250		
50	425	400	325	225	
55	500	475	400	300	
60	575	550	500	400	300
65	650	625	575	500	375

TRAFFIC CONTROL, TEMPORARY EXIT RAMP CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

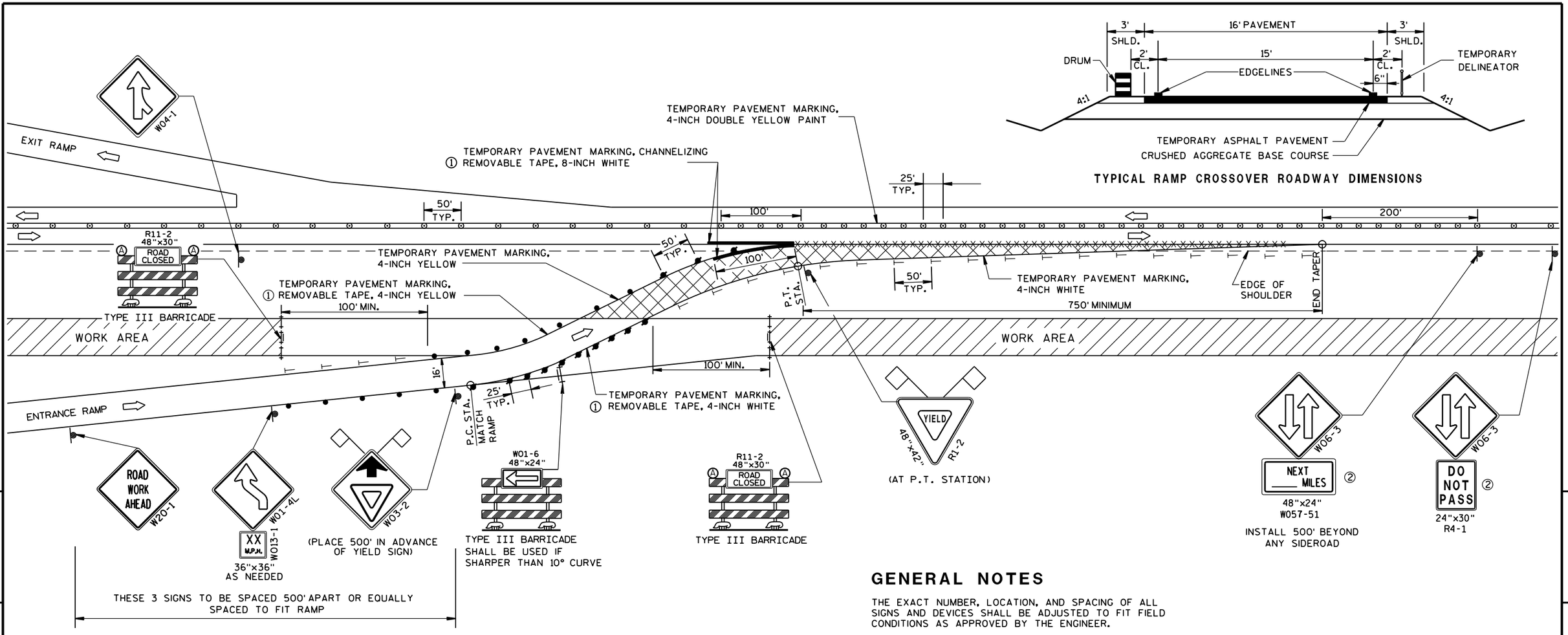
APPROVED
12-4-95 DATE
/S/ Chester J. [illegible]
DIRECTOR, OFFICE O 459 C
FHWA

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S.D.D. 15 D 7-3

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S.D.D. 15 D 7-3



TYPICAL RAMP CROSSOVER ROADWAY DIMENSIONS

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TEMPORARY DELINEATOR - WHITE (STEEL POST W/SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- Ⓐ TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY CROSSOVER ASPHALTIC PAVEMENT
- ~~~~ REMOVING PAVEMENT MARKINGS
- ⊙ DELINEATOR FLEXIBLE/TUBULAR MARKER
- FLAGS, 16" X 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH PERMANENT SIGNS AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

① TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USE OF CROSSOVER.

② INSTALL THE W06-3 SIGN WITH THE R4-1 SIGN 1000 FEET BEYOND THE W06-3 SIGN WITH THE W057-51 SIGN AND ALTERNATE THE SEQUENCE OF THESE SIGNS EVERY 1 MILE.

TRAFFIC CONTROL FOR RAMP CROSSOVERS ARE TYPICAL FOR ALL CONSTRUCTION PHASES.

WORK ALONG EDGES OF RAMP SHALL MAINTAIN A 10-FOOT AREA CLEAR OF PHYSICAL OBSTRUCTIONS SUCH AS DROP OFFS FROM PAVEMENT REMOVAL OR BROKEN CONCRETE CHUNKS DURING PAVEMENT REMOVAL. THESE AREAS SHALL BE LEVELED WITH TEMPORARY FILL TO PROTECT THE TRAVELING PUBLIC WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE CROSSOVER.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

TRAFFIC CONTROL, TEMPORARY ENTRANCE RAMP CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE — /S/ Travis Feltes STATE TRAFFIC ENGINEER — SIGN

FHWA

6
S.D.D. 15 D 8-4

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- POST WITH ATTACHED SIGN IN DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

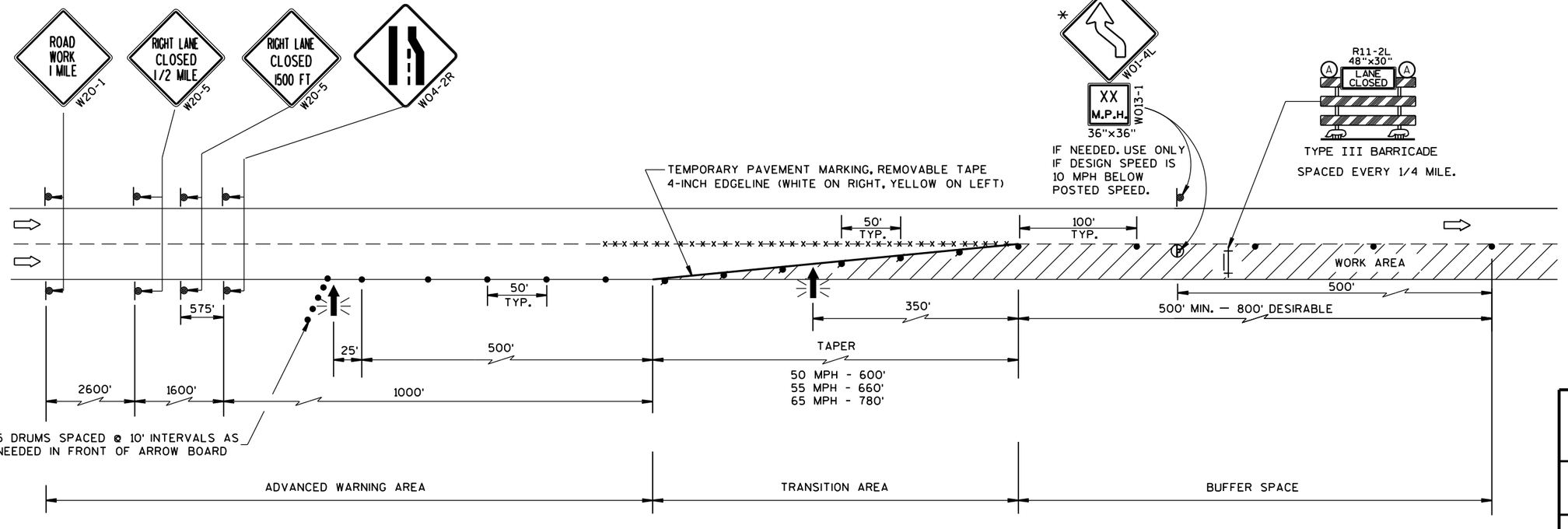


LOCATED 500 FEET IN ADVANCE OF R2-1 SIGN AND 500 FEET BEYOND THE "ROAD WORK 1 MILE" SIGN.



R2-1
48"×60"
(BLACK AND WHITE)

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.

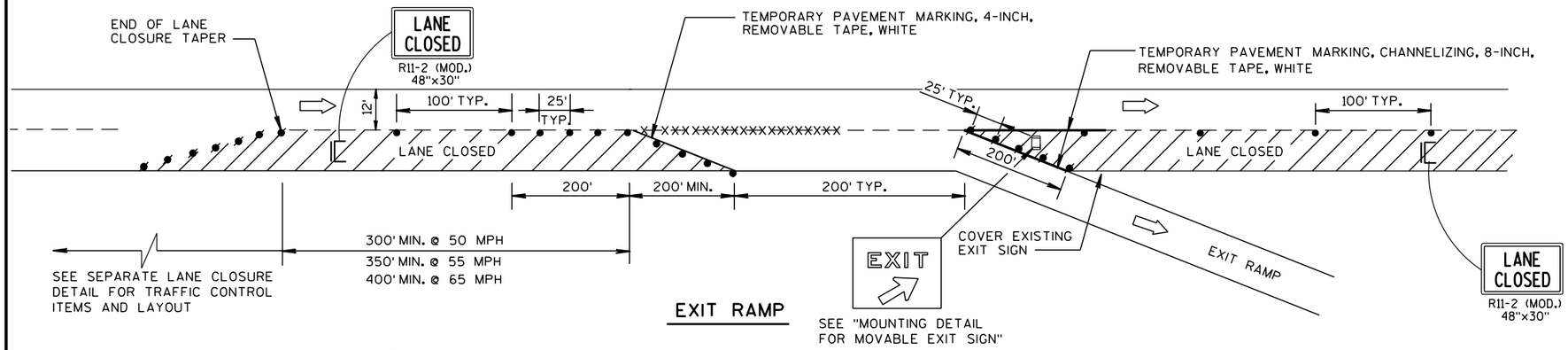


TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.

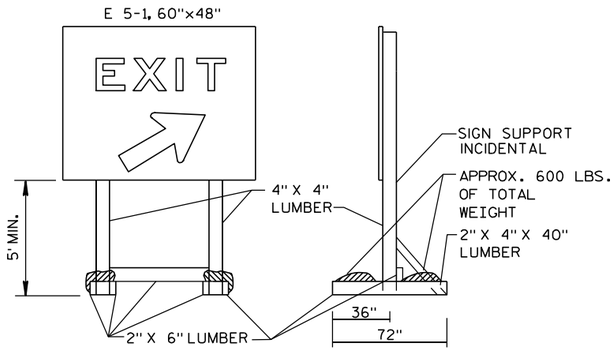
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
SIGN
FHWA

6
S.D.D. 15 D 12-3

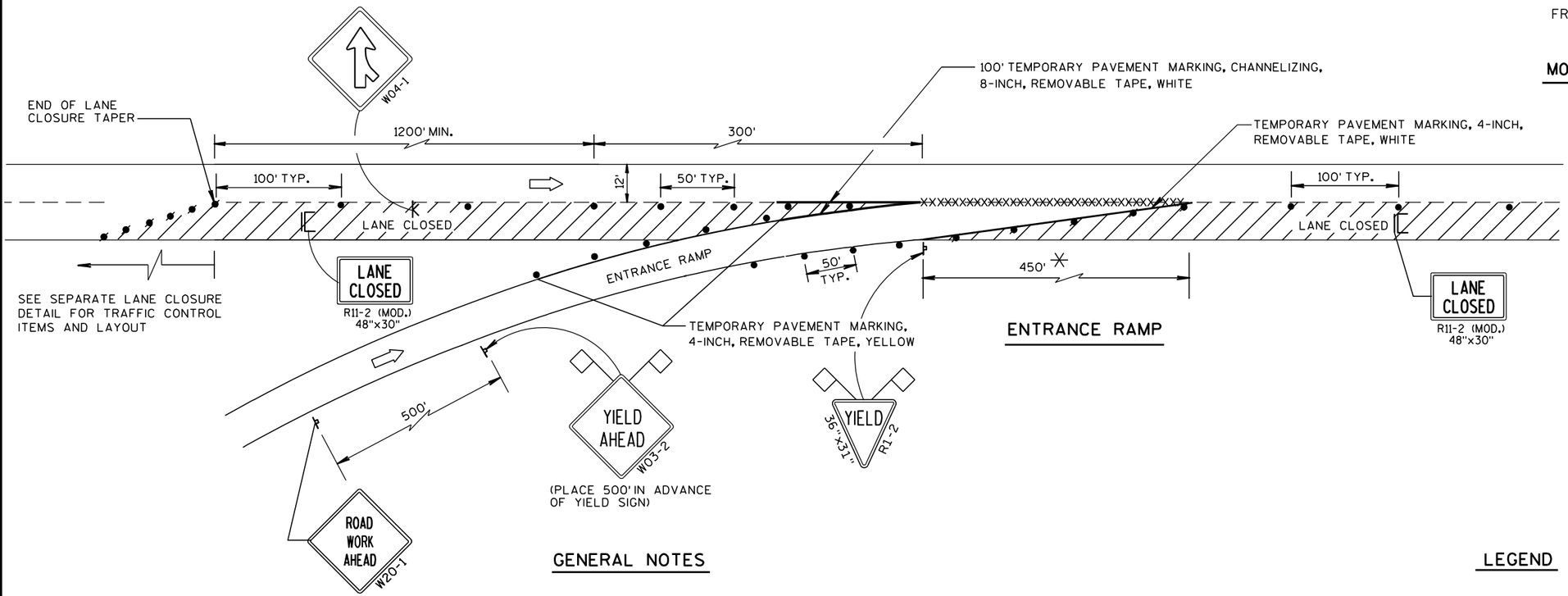


EXIT RAMP



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

MOUNTING DETAIL FOR MOVABLE EXIT SIGN



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2 (MOD.) "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

✳ LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC CONTROL, DRUM
- TRAFFIC CONTROL, DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN)
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE (8' EQUIVALENT) WITH SIGN
- FLAGS, 16"x16" MIN., ORANGE
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/24/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

S.D.D. 15 D 15-1

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

TRAFFIC CONTROL DRUM

SIGN ON PERMANENT SUPPORT

TYPE "A" WARNING LIGHT (FLASHING)

DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

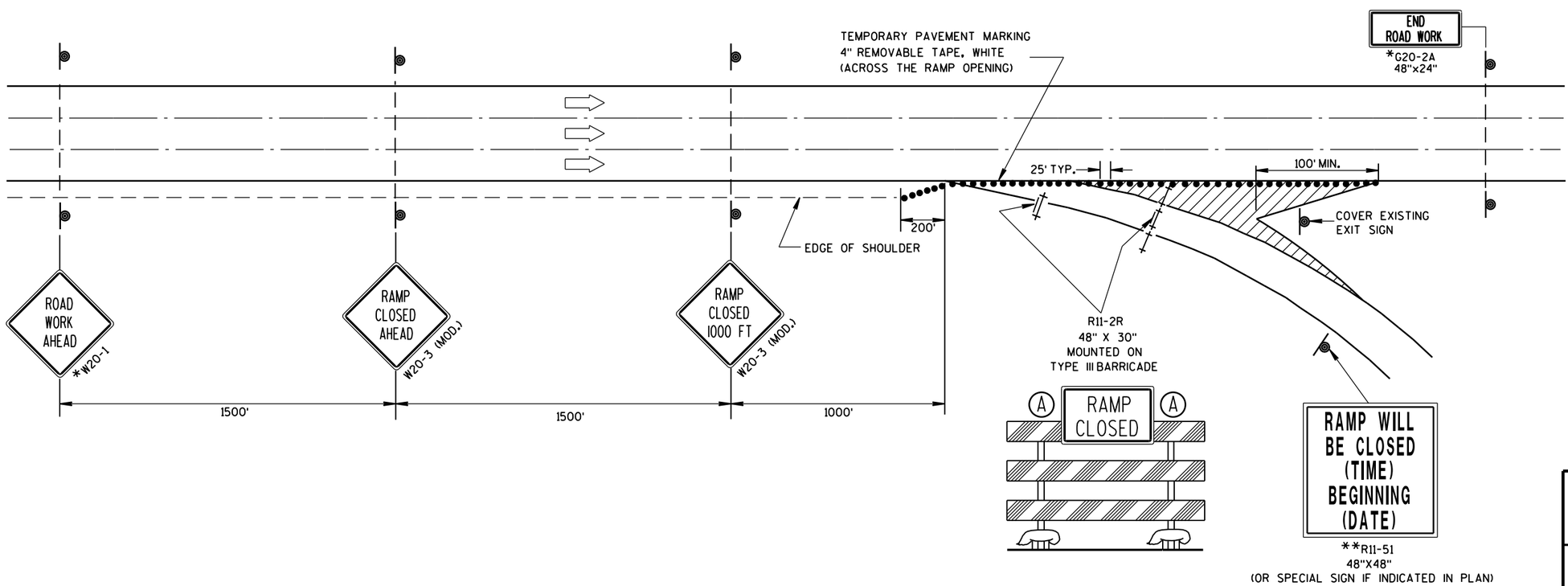
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

*W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

** PLACE "RAMP WILL BE CLOSED" SIGN 10 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



TRAFFIC CONTROL,
EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013
DATE

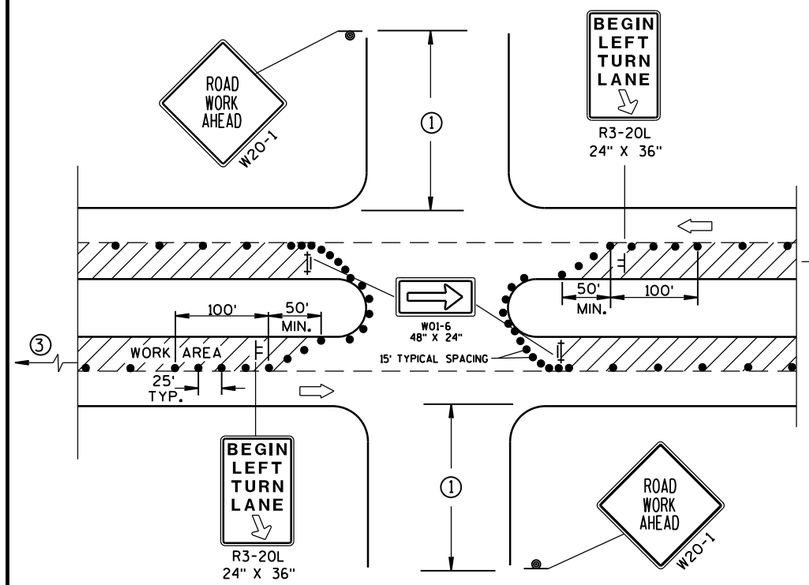
/S/ Travis Feltes
STATE TRAFFIC ENGINEER

DESIGN

FHWA

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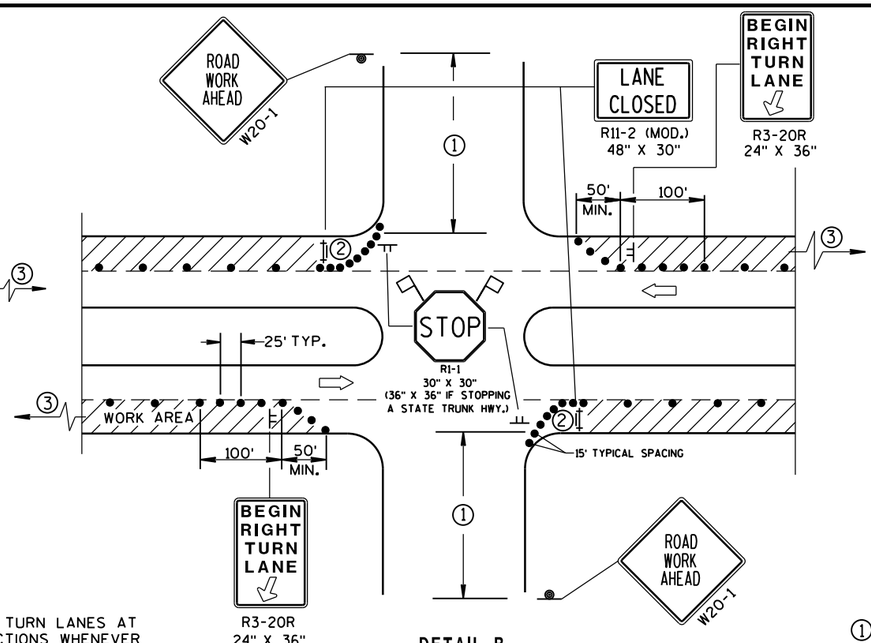
S.D.D. 15 D 16-2



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

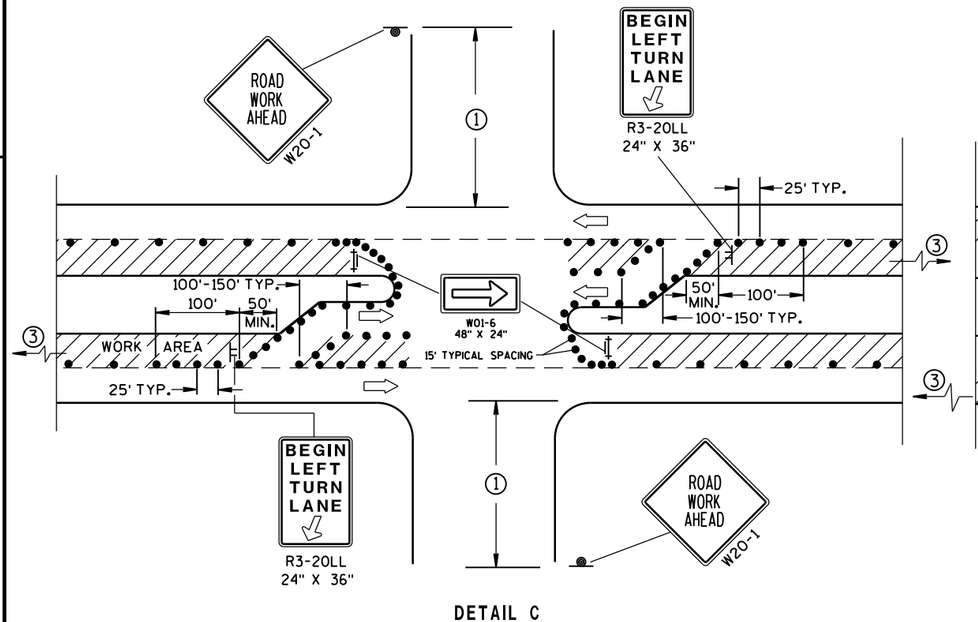
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

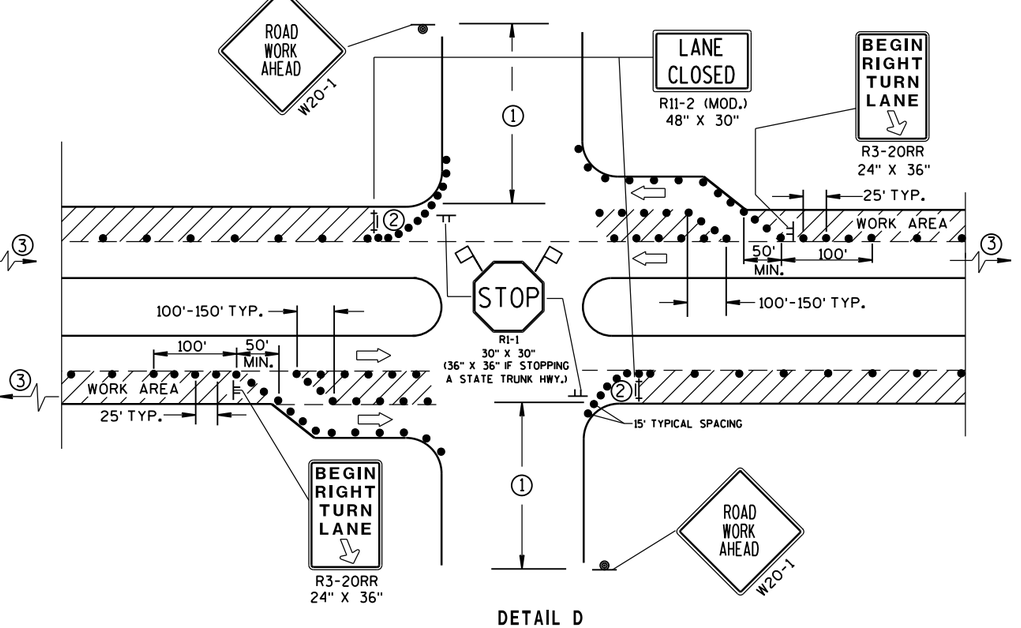
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013	/S/ Travis Feltes
DATE	STATE TRAFFIC ENGINE[illegible]ESIGN

FHWA

6

S.D.D. 15 D 21-2

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

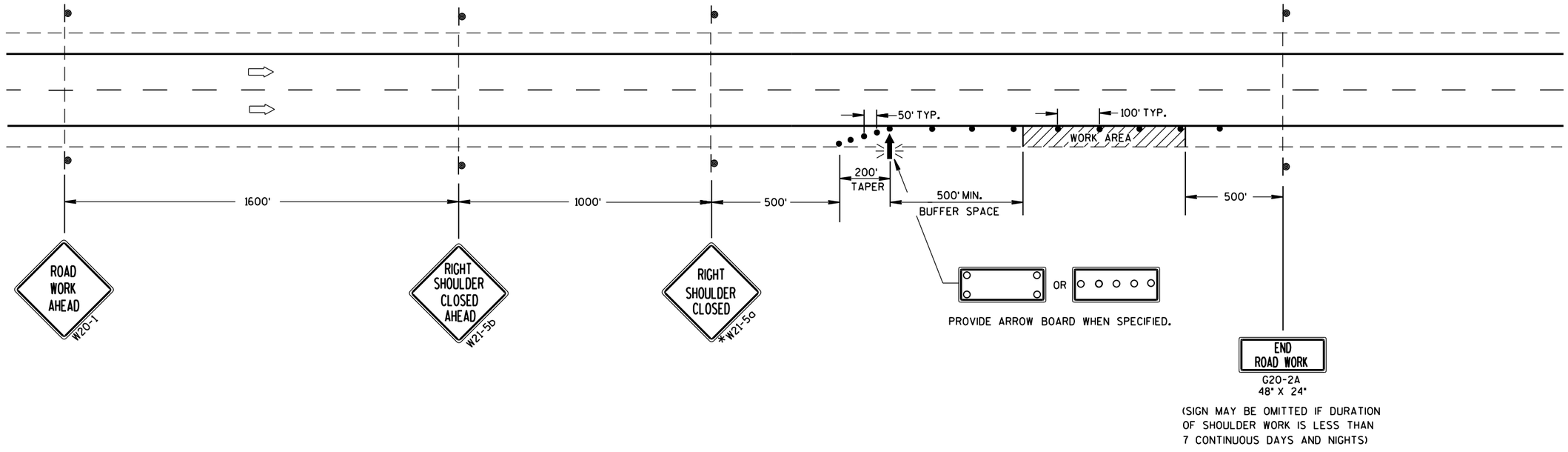
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

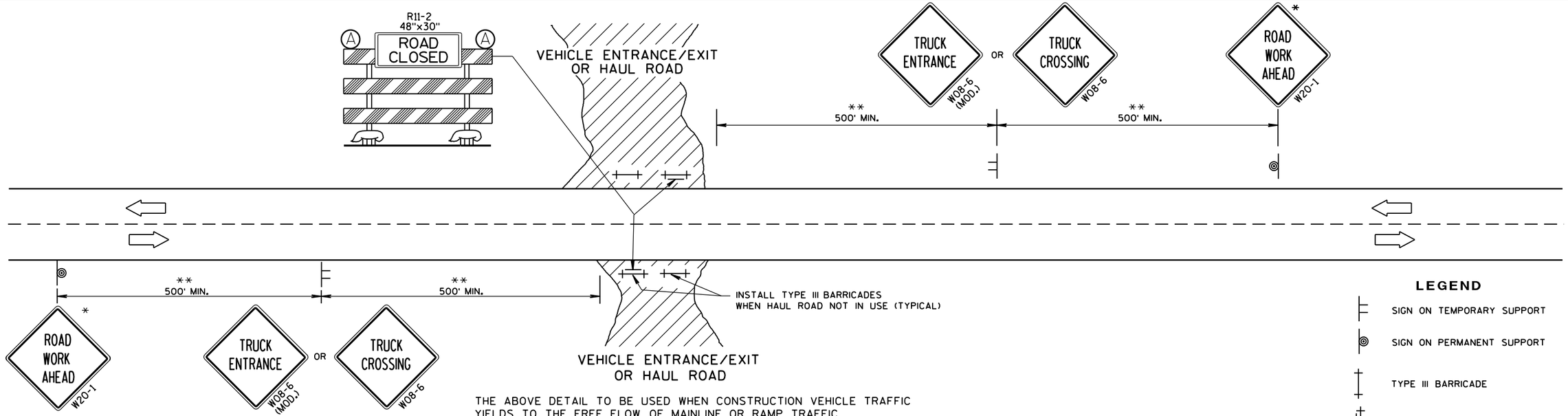
8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 D 27-2



THE ABOVE DETAIL TO BE USED WHEN CONSTRUCTION VEHICLE TRAFFIC YIELDS TO THE FREE FLOW OF MAINLINE OR RAMP TRAFFIC

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, DEVICES AND FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.

WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

* THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE ENTRANCE/EXIT CONDITIONS ARE SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.

** 500 FEET SHOWN IS FOR ROADWAYS WITH A NON-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FEET. FOR 25-30 MPH, USE 200 FEET. USE 1000 FEET/1500 FEET FOR EXPRESSWAY/FREEWAY.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

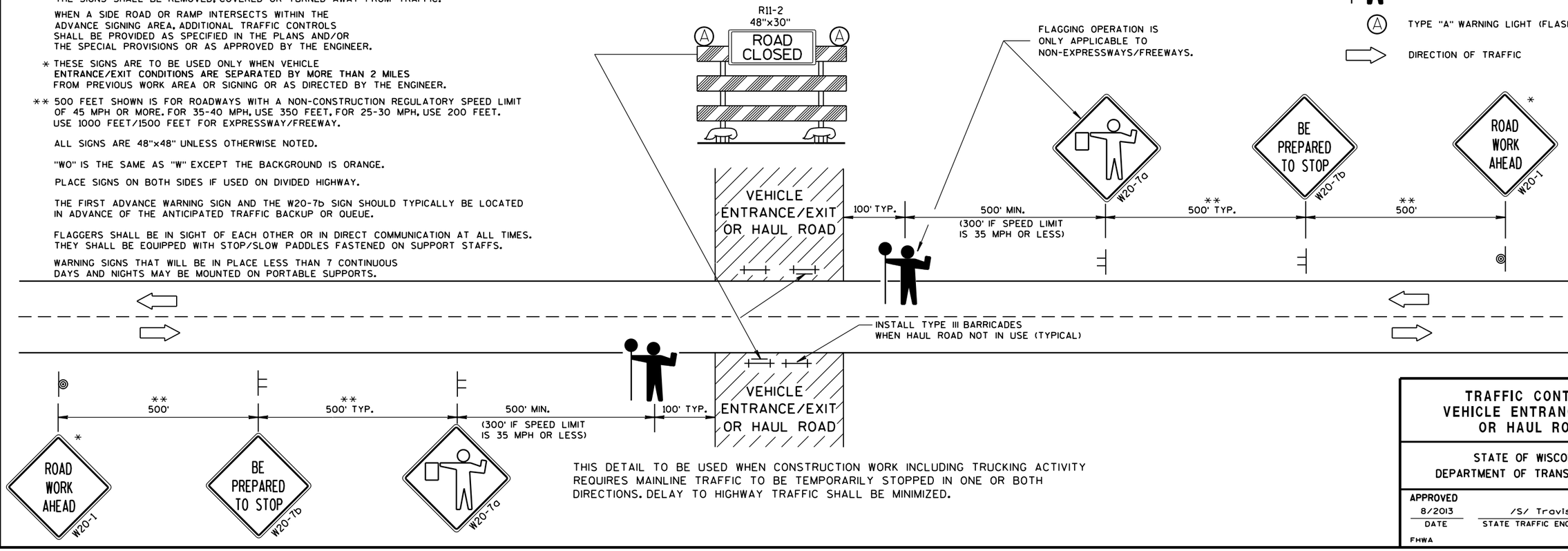
"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.

THE FIRST ADVANCE WARNING SIGN AND THE W20-7b SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS.

WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.



THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

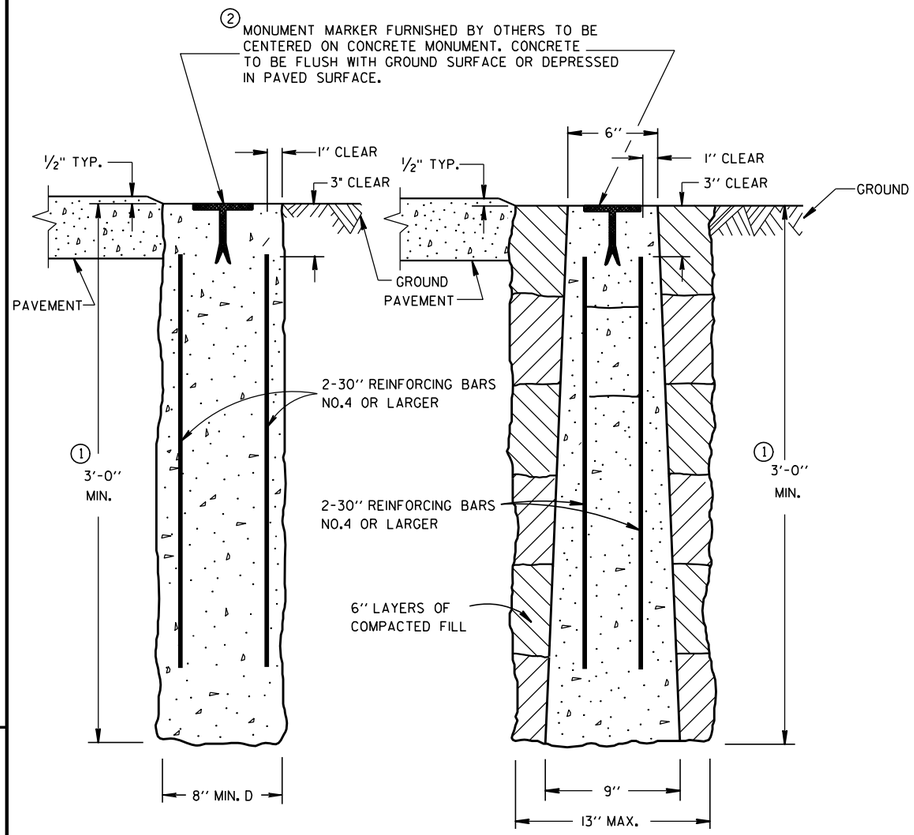
APPROVED

8/2013	/S/ Travis Feltes	
DATE	STATE TRAFFIC ENGINEER	IGN

FHWA

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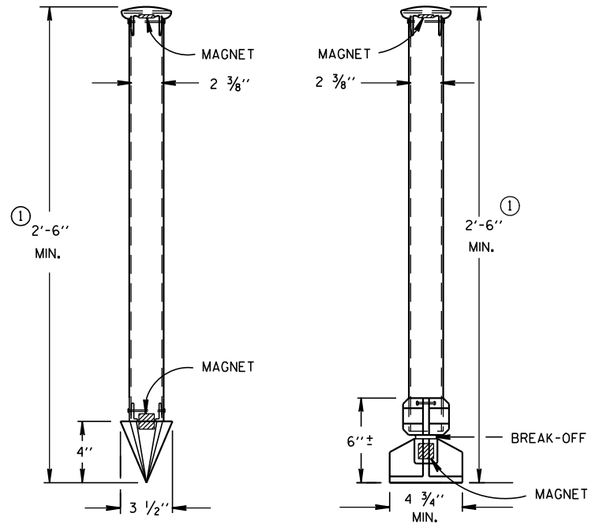
S.D.D. 15 D 29-3



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C DRIVE-IN MONUMENT

TYPE D BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

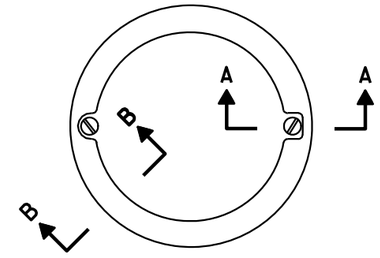
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

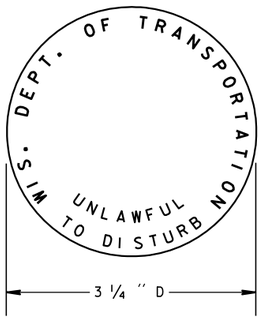
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

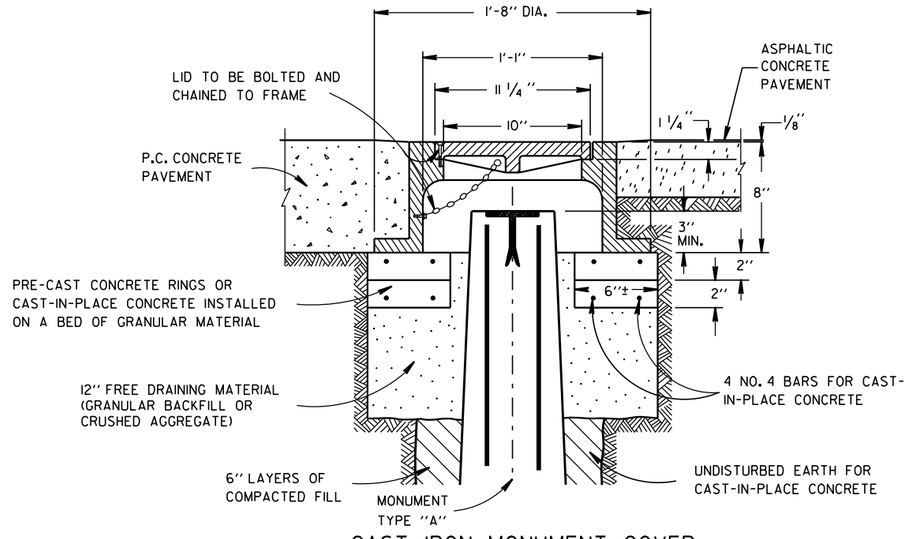
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

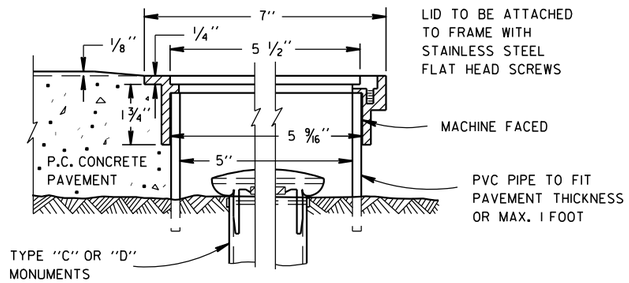


② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/22/1999 DATE

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

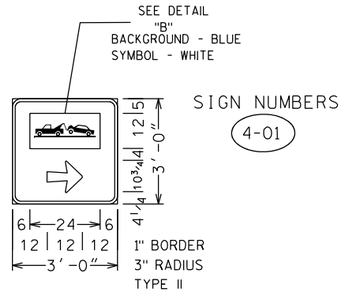
FHWA

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S.D.D. 16 A 1-6

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S.D.D. 16 A 1-6



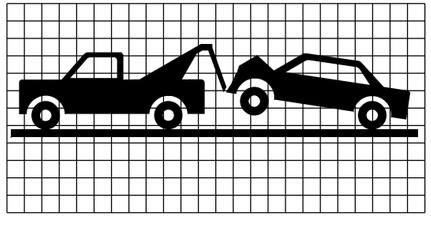
SERIES "C" LETTERS

BLUE BACKGROUND/WHITE LETTERS

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIRMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE II".
3. UNLESS OTHERWISE NOTED, TYPE I AND TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL".
4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.
5. ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E, MODIFIED". ALL LOWERCASE MESSAGE WITH AN INITIAL UPPERCASE LETTER SHALL BE "SERIES E, MODIFIED".
6. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
7. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
8. THE SIGN NUMBER IS DENOTED IN THE OVAL NEAR EACH DETAIL.
9. DO NOT SCALE.

CRASH INVESTIGATION SITE TRAILBLAZERS



SIGN IS TYPE II-TYPE H REFLECTIVE - REFERENCE WIS DOT STANDARD SPECIFICATION FOR HIGHWAY AND STRUCTURE CONSTRUCTION LATEST EDITION.

CORNERS MAY BE SQUARE OR ROUNDED WHEN BASE MATERIAL IS PLYWOOD BUT BORDERS SHALL BE ROUNDED AS SHOWN. WHEN BASE MATERIAL IS METAL, THE CORNERS AND BORDERS SHALL BE ROUNDED.

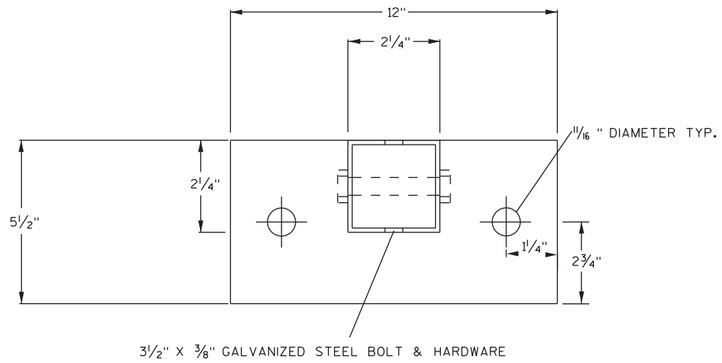
DETAIL "B"

7

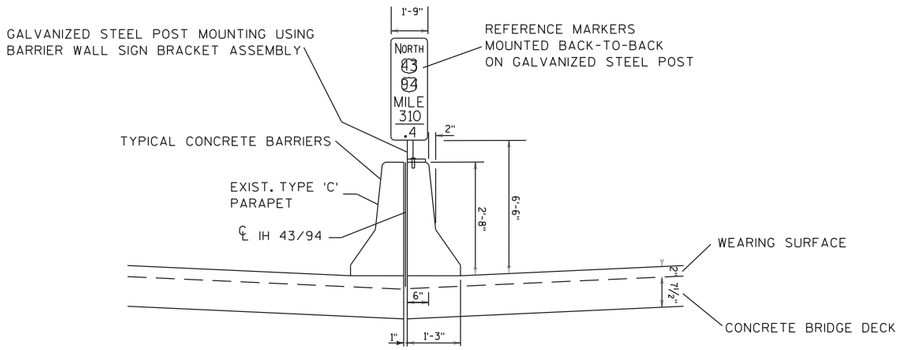
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	SIGNING DETAIL	SHEET	E

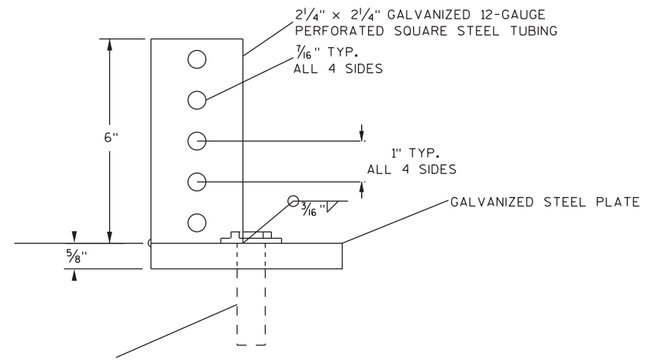
BARRIER WALL SIGN BRACKET ASSEMBLY
NOT TO SCALE



PLAN VIEW



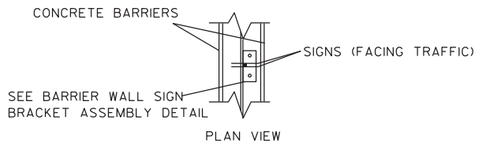
DOUBLE MEDIAN BRIDGE PARAPET



ELEVATION VIEW

NOTES
1) ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION
2) ALL MATERIAL TO BE APPROVED BY ENGINEER BEFORE INSTALLATION
3) SEE SIGN PLATE A4-8 FOR BOLT REQUIREMENTS.

DOUBLE MEDIAN BARRIER
TYPICAL SIGN PLACEMENT DETAILS



PLAN VIEW

MEDIAN BRIDGE PARAPET MOUNTING DETAIL

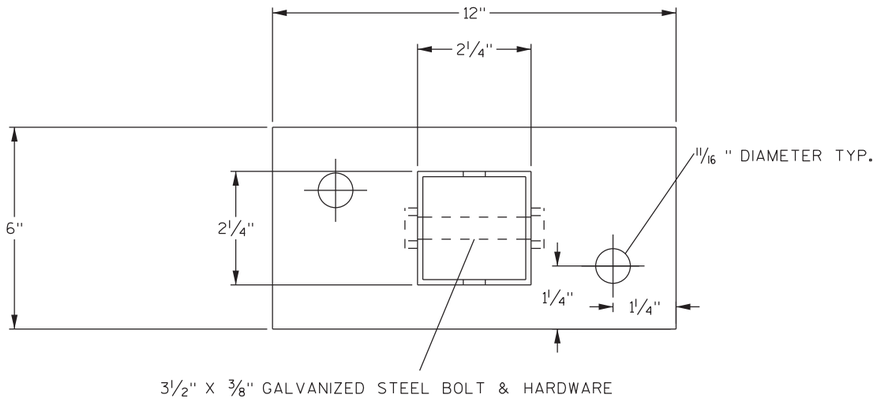
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7

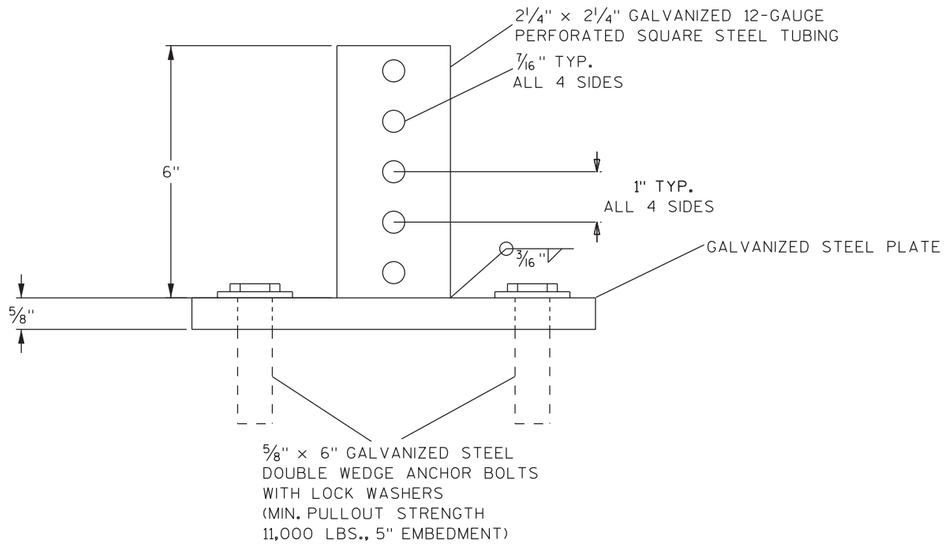
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	MILE MARKER MOUNTING-DOUBLE BARRIER	SCALE: 0 ½" 1"	SHEET 469	E

TYPICAL REFERENCE MARKER MOUNTING DETAILS

BARRIER WALL SIGN BRACKET ASSEMBLY
NOT TO SCALE

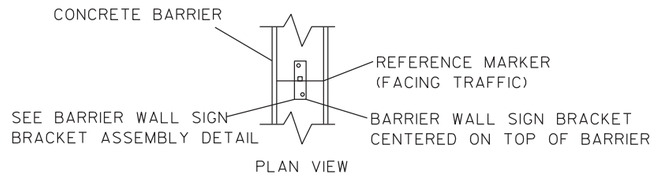


PLAN VIEW



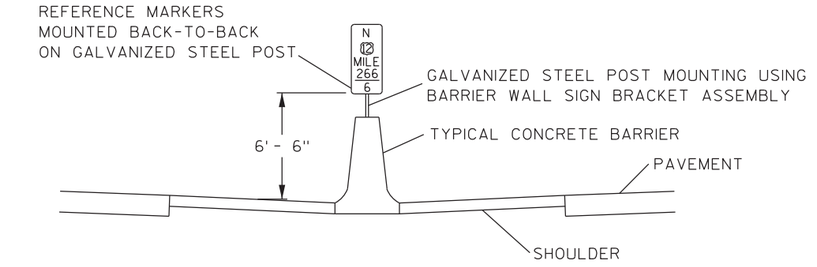
SIDE VIEW

TYPICAL REFERENCE MARKER PLACEMENT DETAILS



PLAN VIEW

MEDIAN BARRIER MOUNTING DETAIL



SINGLE MEDIAN BARRIER

NOTES

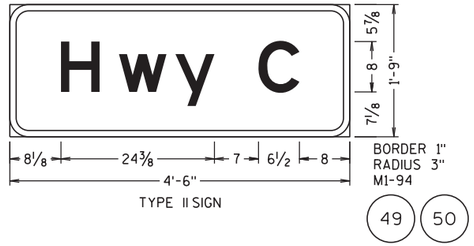
1) ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION
2) ALL MATERIAL TO BE APPROVED BY ENGINEER BEFORE INSTALLATION

3) SEE SIGN PLATE A4-8 FOR BOLT REQUIREMENTS. INCIDENTAL TO SIGN.

7

7

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	MILE MARKER MOUNTING	SCALE: 0 ½" 1"	SHEET 470	E



TYPE II SIGN

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.

2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".

3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.

4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.

5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.

6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"

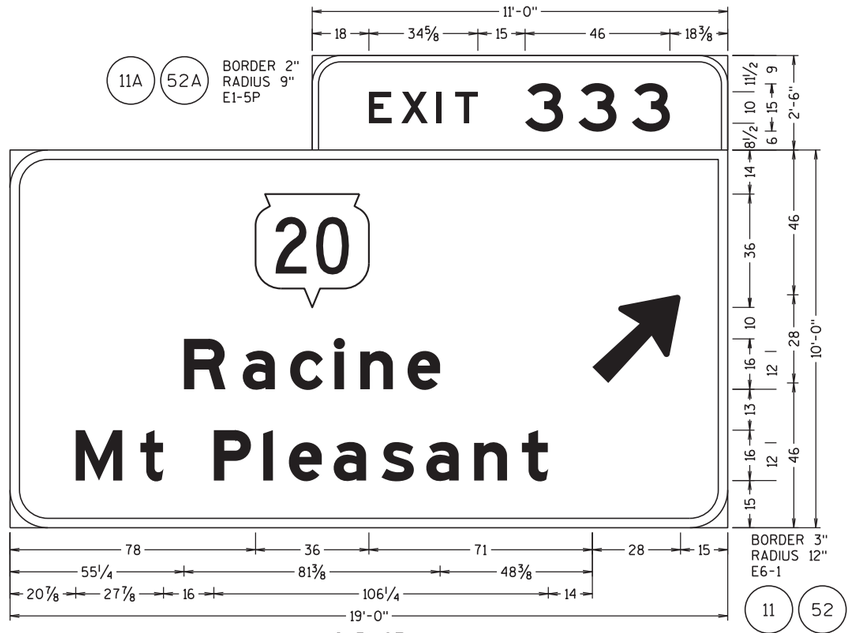
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

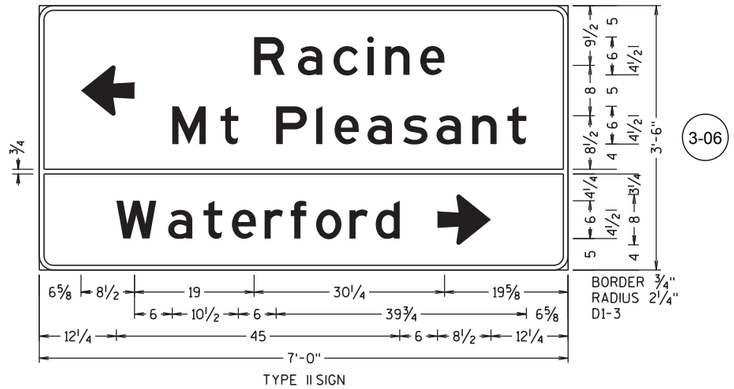
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10

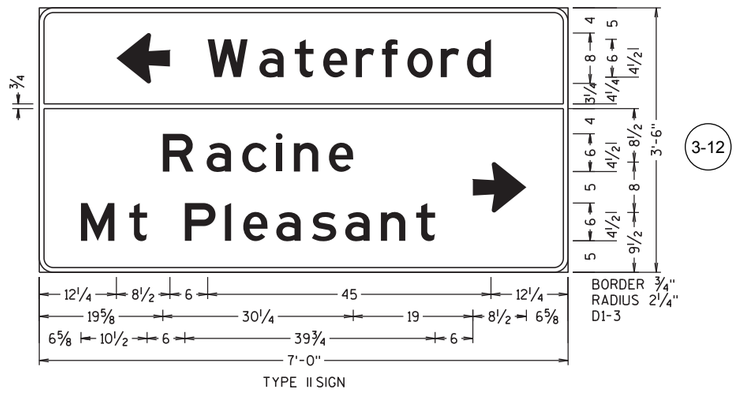
11. DO NOT SCALE.



S-51-27
S-51-28



TYPE II SIGN



TYPE II SIGN

GENERAL NOTES:

1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.

2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE I".

3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.

4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.

5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.

6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"

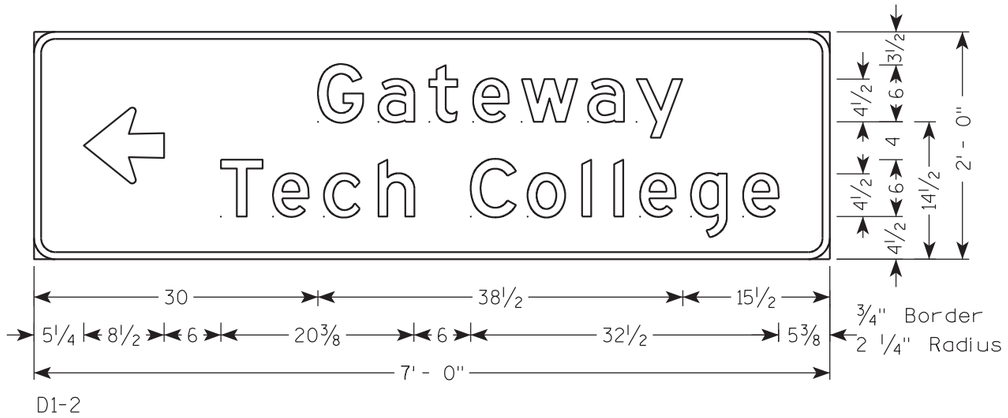
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10

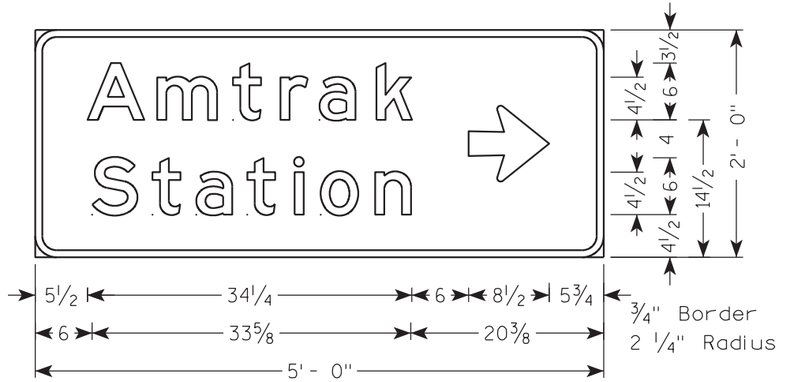
11. DO NOT SCALE.



D1-2

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E



D1-2

7

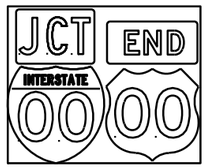
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PROJECT NO: 1033-02-72	HWY: STH 20/194	COUNTY: RACINE	PERMANENT SIGNING	SHEET NO:	E

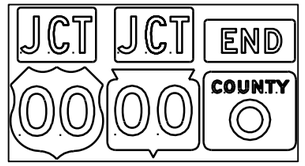
TYPICAL ASSEMBLIES



J1-1



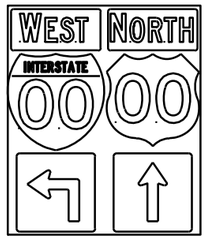
J1-2



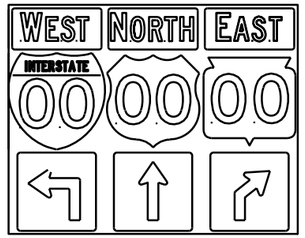
J1-3



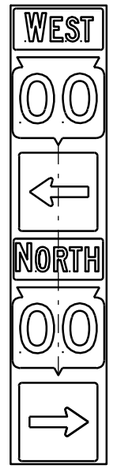
J2-1



J2-2

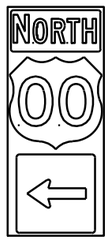


J2-3

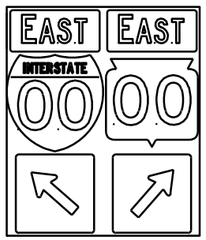


JV

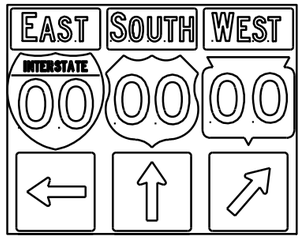
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1



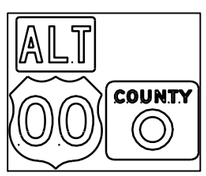
J3-2



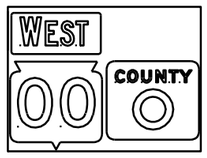
J3-3



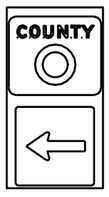
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



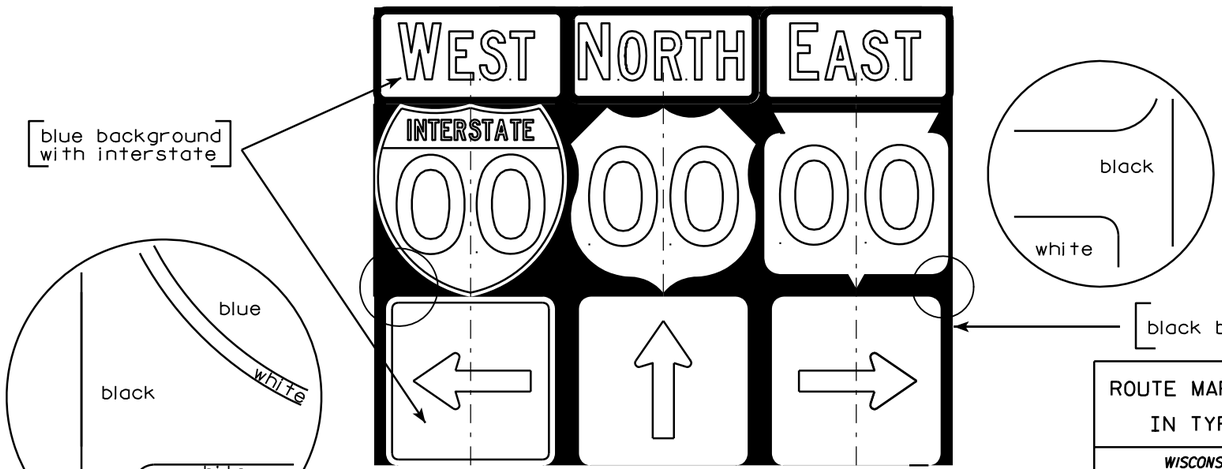
J23-1



J22-1

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of interstate and non interstate shields, arrows and cardinals shall be white on blue.



ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

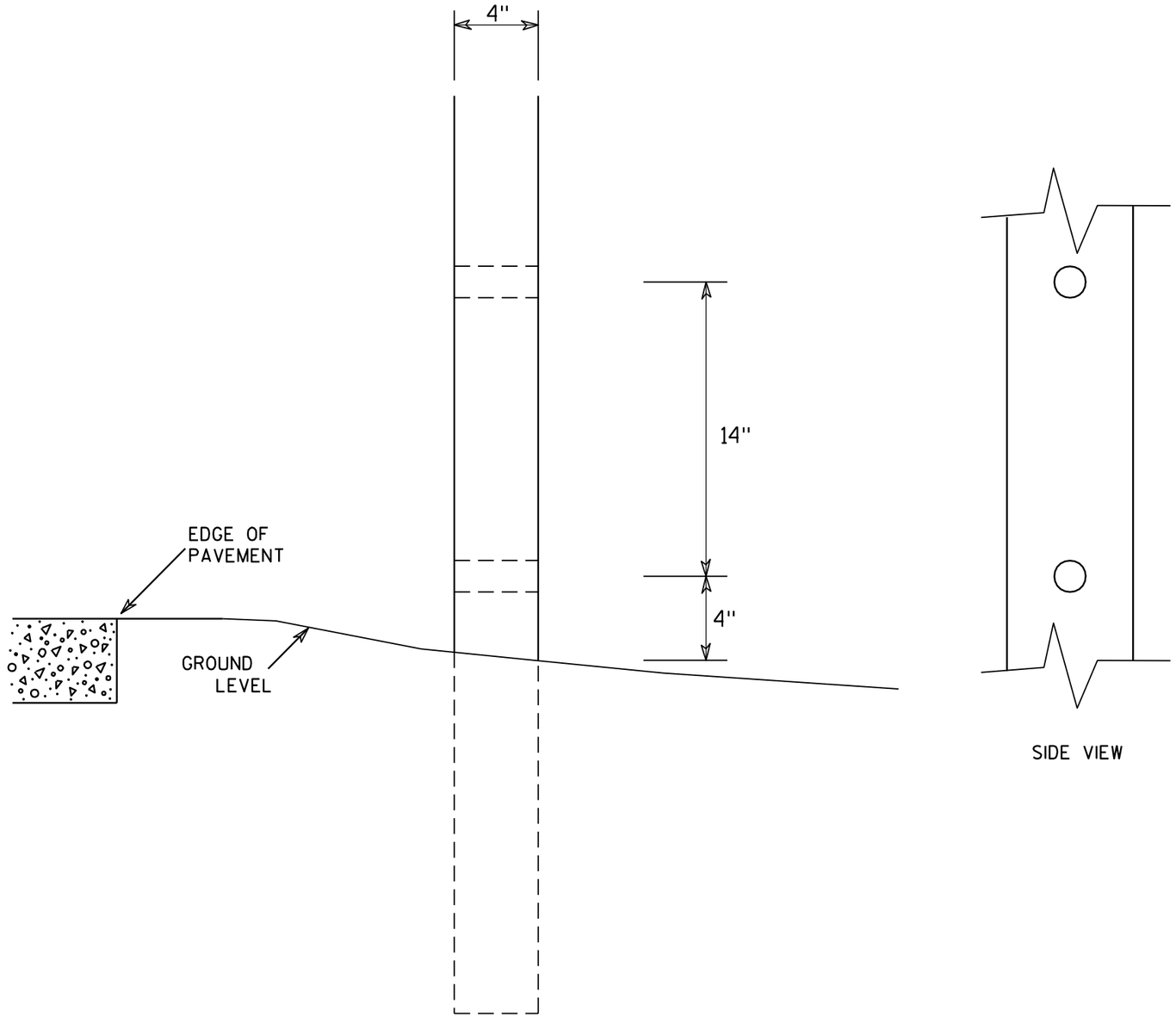
DATE 3/25/13 PLATE NO. A2-1S.7

7

7

PROJECT NO:

SHEET NO: 474 E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

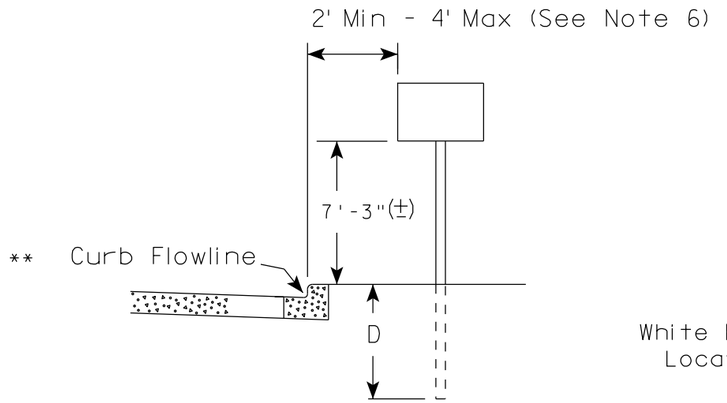
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

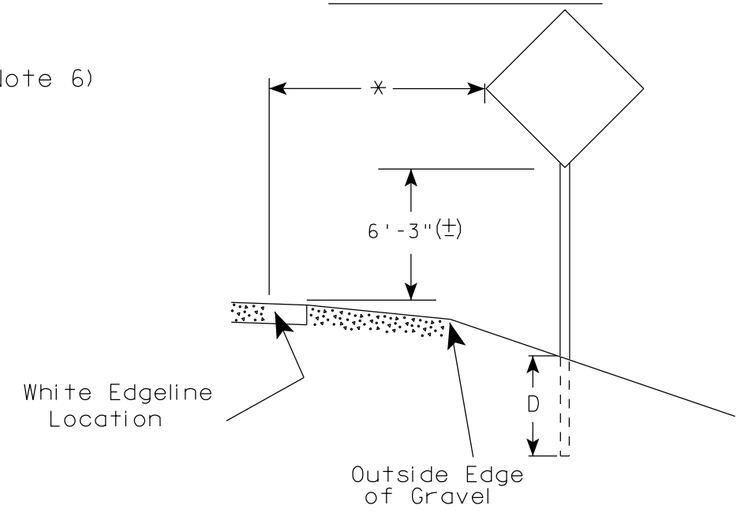
DATE 3/27/97 PLATE NO. A4-11.2

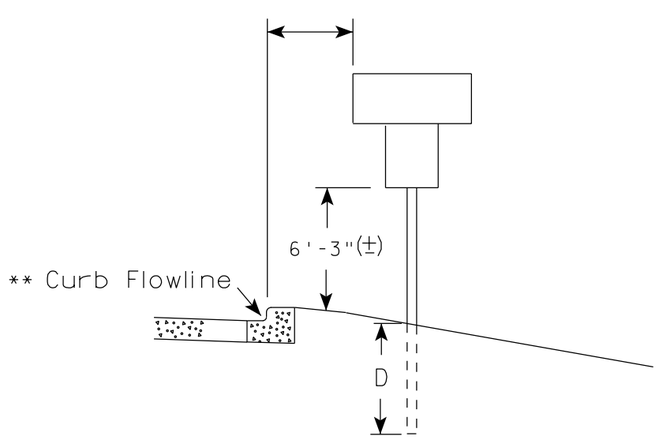
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 475	E

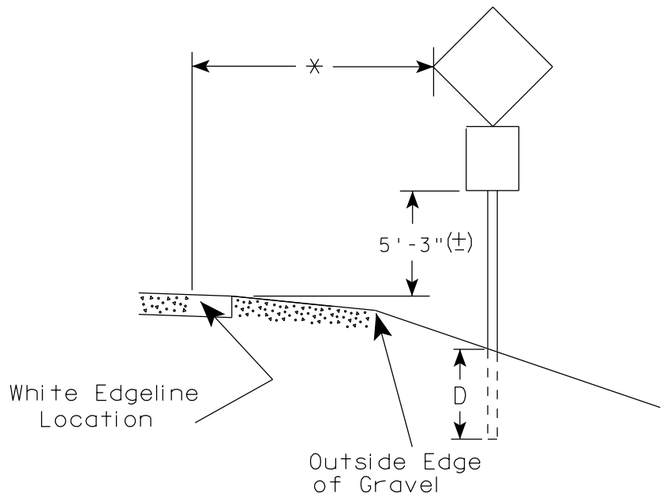
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

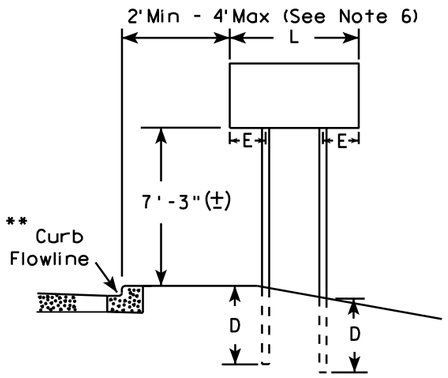
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

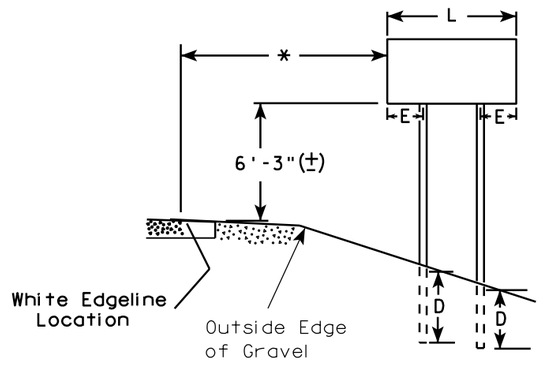
DATE 9/30/13 PLATE NO. A4-3.18

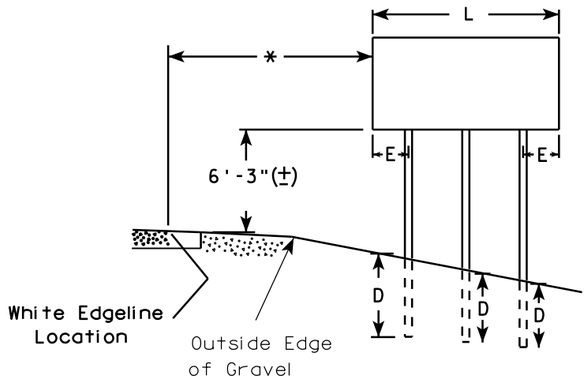
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

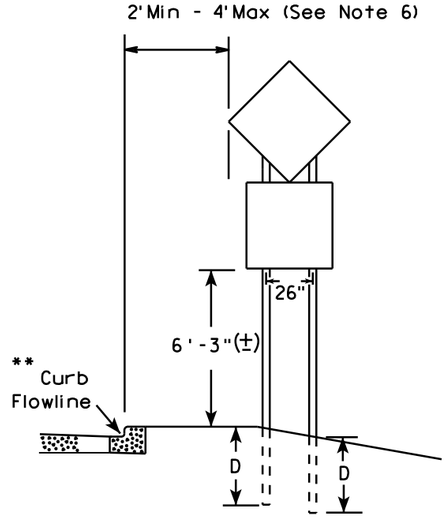
URBAN AREA



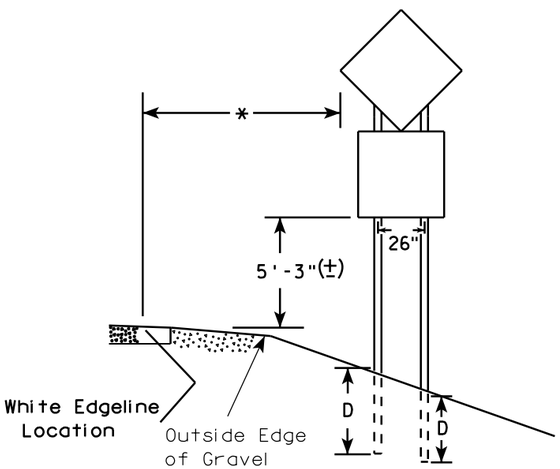
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
*** Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

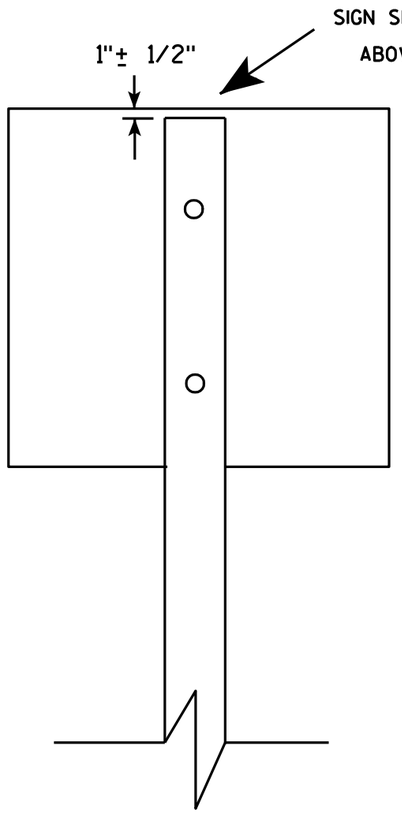
WISCONSIN DEPT OF TRANSPORTATION

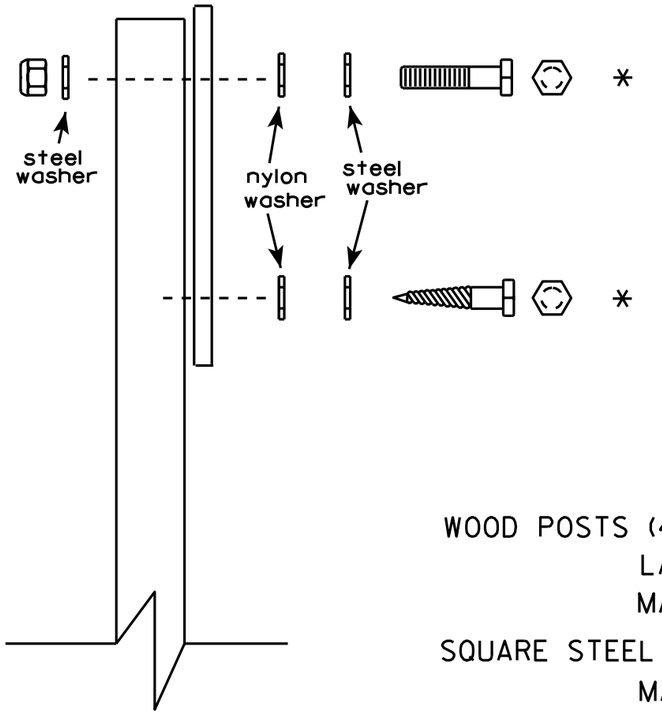
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-4 12 477

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 30-SEP-2013 13:27 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

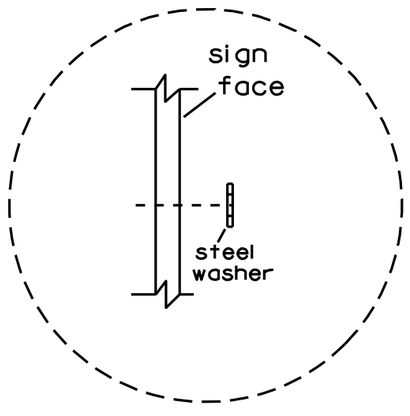
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

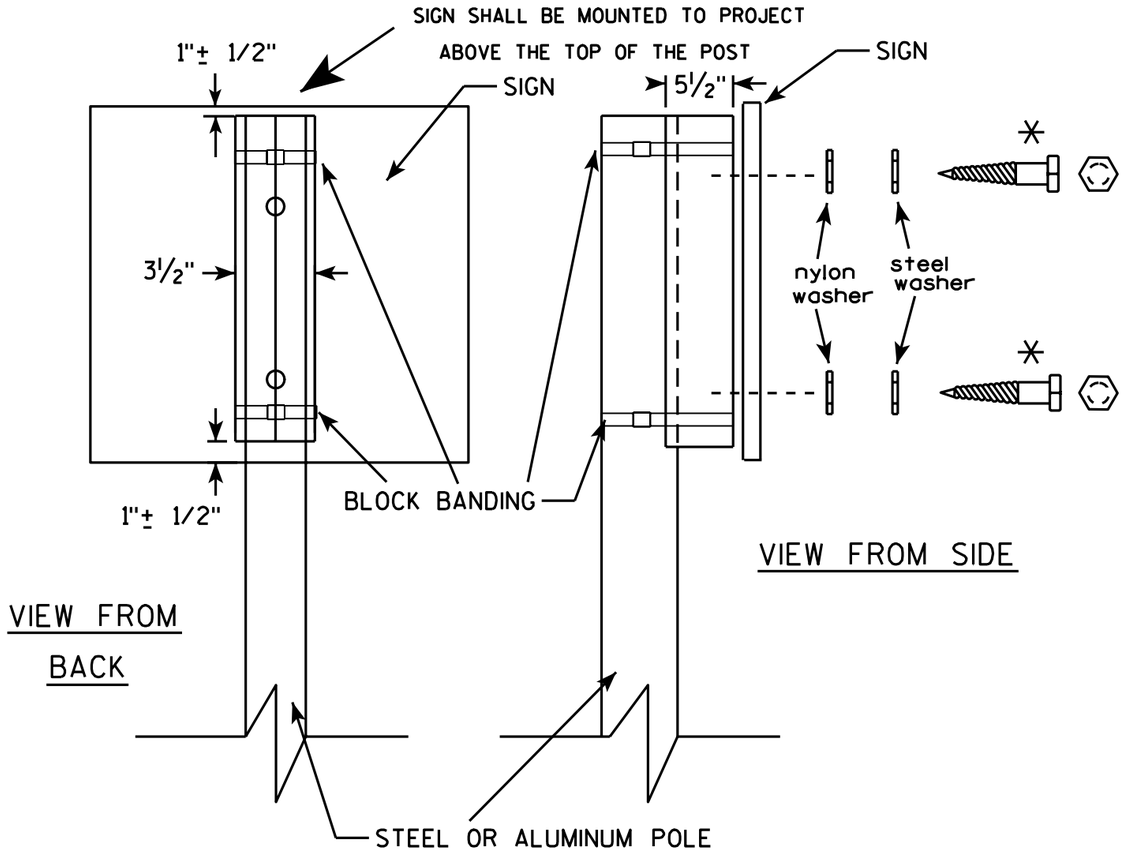
DATE 3/23/10 PLATE NO. A4-8.7

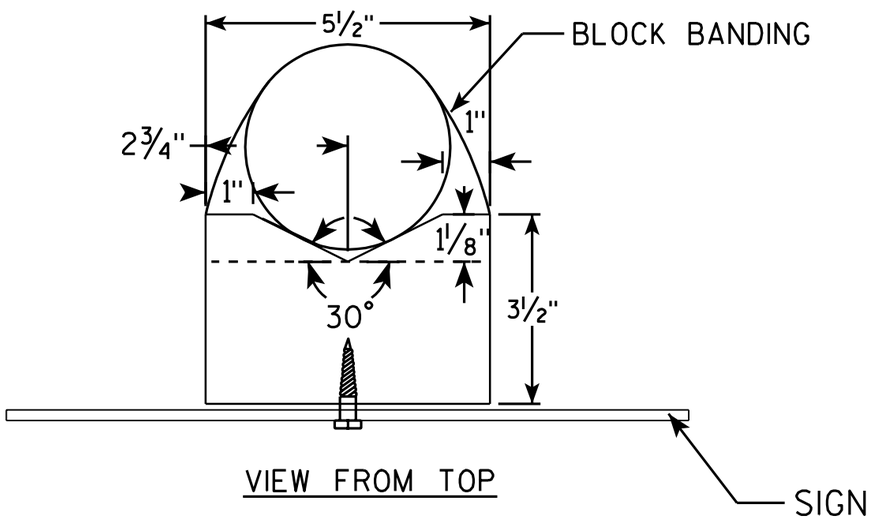
7

7

PROJECT NO:

SHEET NO: 478 E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

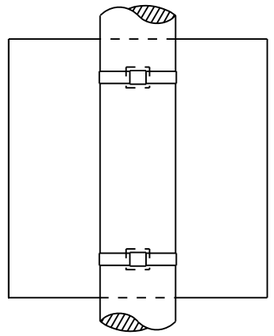
SHEET NO: 479 E

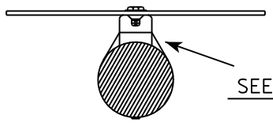
FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

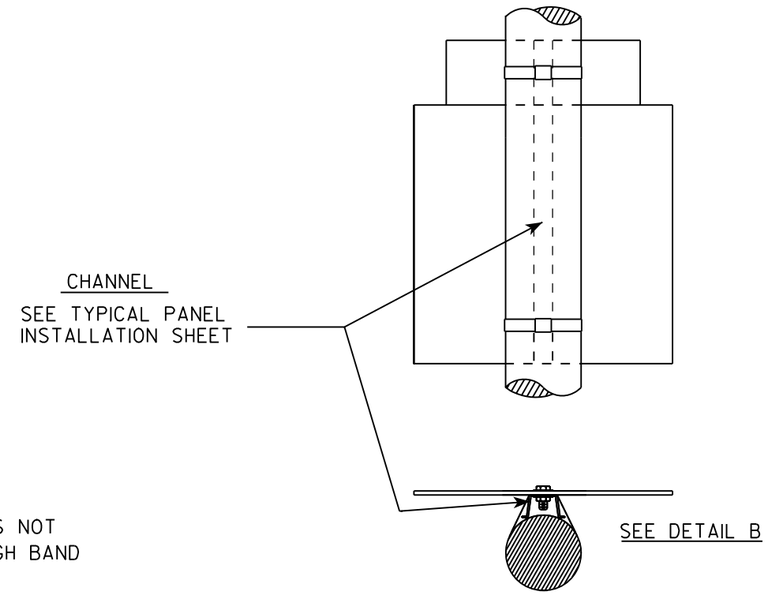
BANDING

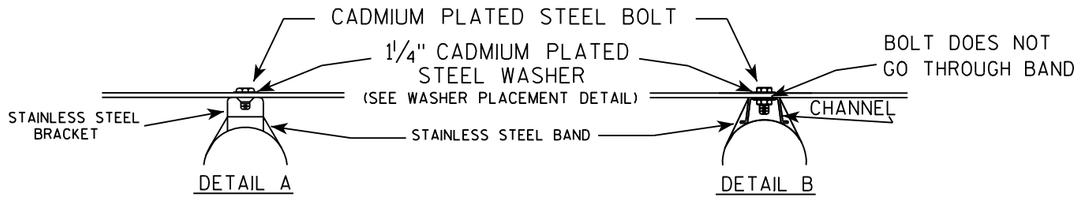
SINGLE SIGN



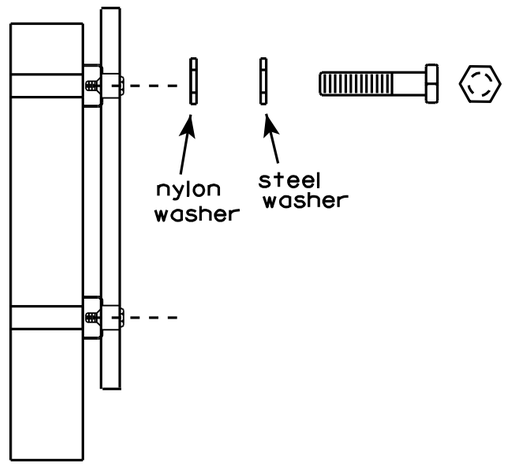


"J" ASSEMBLY





WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

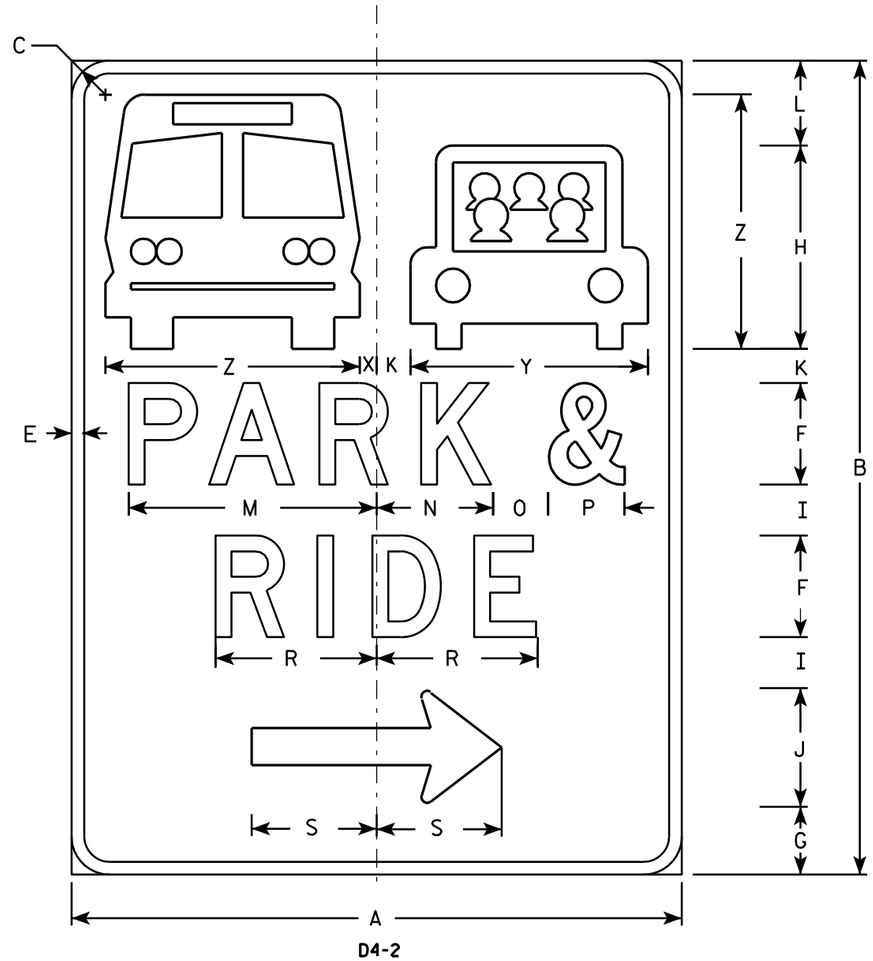
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

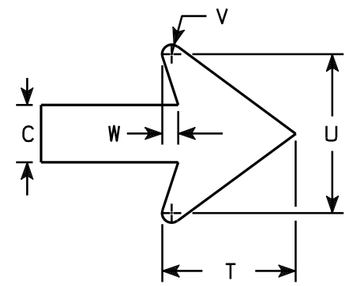
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 480	E



D4-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The D4-2L is the same as a D4-2R except the arrow is reversed.
6. The D4-2 sign may have either symbol or both symbols at the same time.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	30	1 1/8		1/2	4	1 5/8	7 1/2	1 1/2	4 5/8	1 3/8	3 7/8	9 3/4	4	2 3/4	3		6 3/8	4 7/8	3 1/2	4 1/8	1/4	3/8	5/8	9 3/8	10	5.0
2	30	36	1 3/8		5/8	5	2	9	1 5/8	5 1/2	1 5/8	4 5/8	12 1/4	5 1/8	3 3/8	3 3/4		8	6 1/8	4 3/8	5 1/4	3/8	1/2	7/8	11 3/4	12 1/2	7.50
3	36	48	2 1/4		3/4	6	4	12	3	7	2	5	14 5/8	6 7/8	3 1/4	4 1/2		9 1/2	7 1/2	5 1/4	6 1/4	3/8	5/8	1	14	15	12.0
4																											
5																											

STANDARD SIGN
D4-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/20/10 PLATE NO. D4-2.5

PROJECT NO:

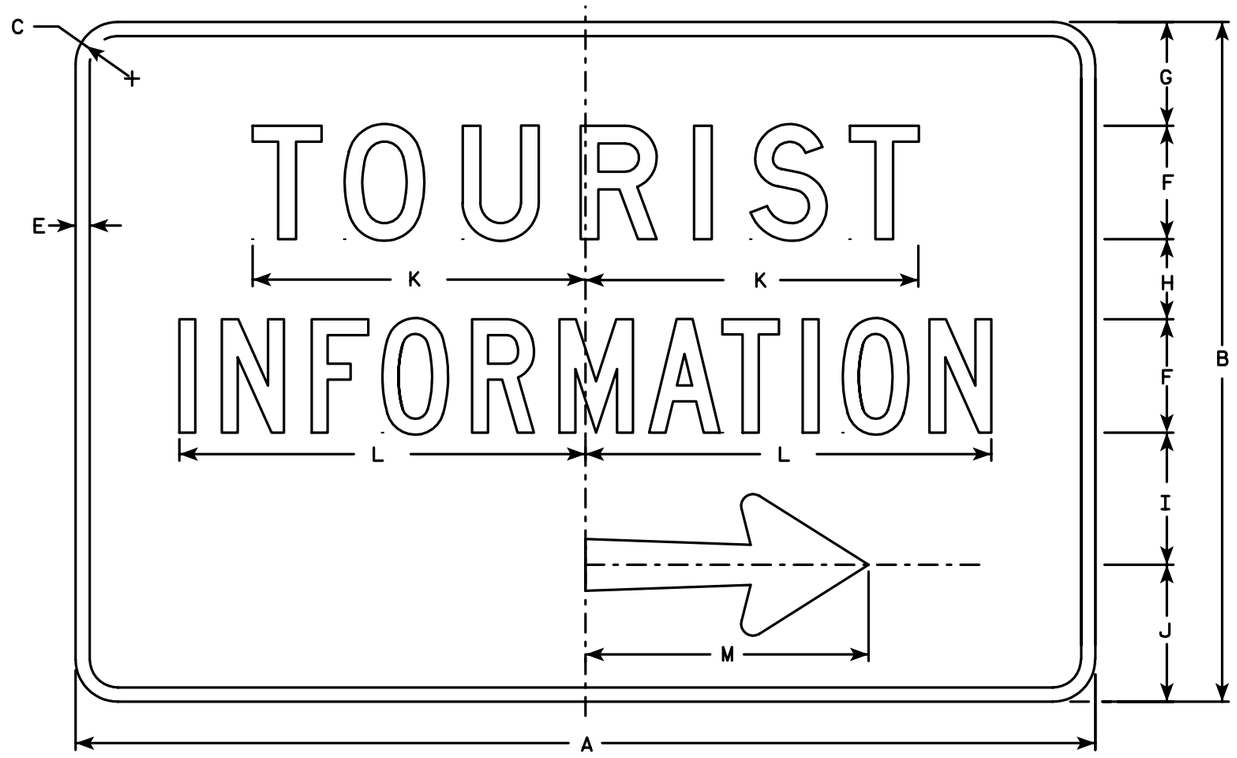
SHEET NO: 481 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\D42.dgn PLOT DATE : 10-FEB-2011 14:21 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

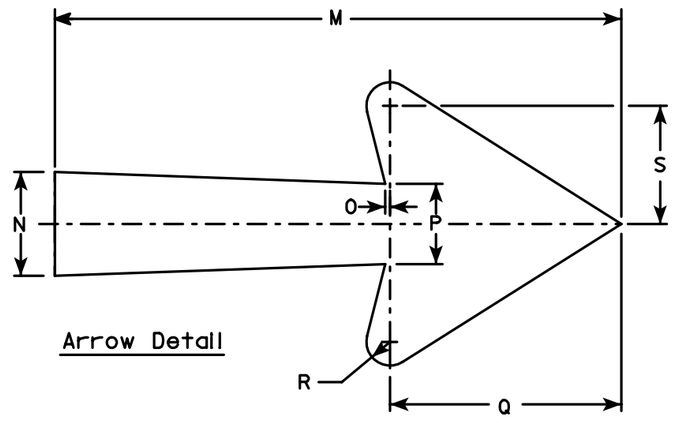
7



D7-59R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White - Type H Reflective
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 are series D
   Line 2 is series C
6. D7-59L is same as D7-59R except the arrow is reversed.



Arrow Detail

Metric equivalent for this sign is:

SIZE	
1	
2	1350 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	54	36	2 1/4		3/4	6	5 1/2	4 1/4	7	7 1/4	17 5/8	21 1/2	15	2 3/4	1/8	2 1/8	6 1/8	5/8	3 1/8								13.5	1.22
3																												
4																												
5																												

STANDARD SIGN
D7-59

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Sprague
for State Traffic Engineer

DATE 1/11/02 PLATE NO. D7-59.6

STATE PROJECT NUMBER:

SHEET NO: 482 E

58,59,60,61,62,63

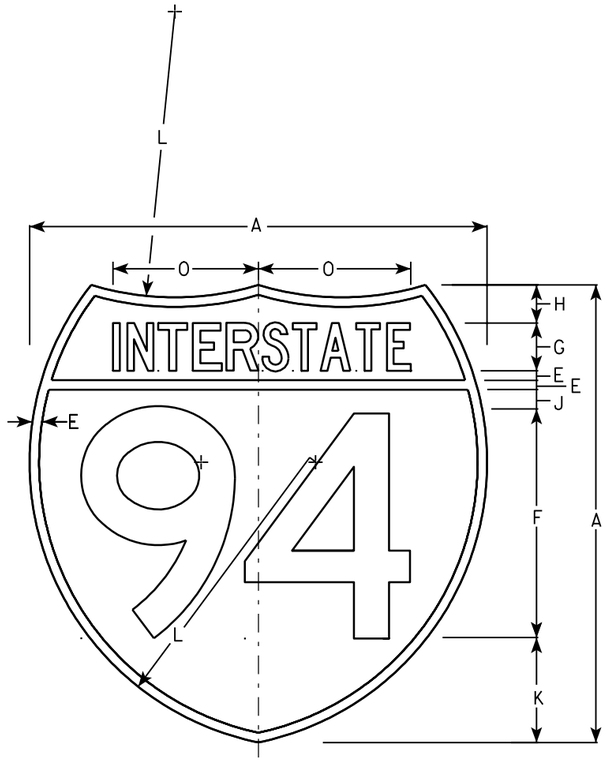
LEVELS ON - 2.3. 5.6. 10.

FILE NAME : C:\Users\Projects\tr_stdplate\D759.DGN PLOT DATE : 22-JAN-2002 08:12 ORG DATE : 5/21/97 Originator : Don Kluever

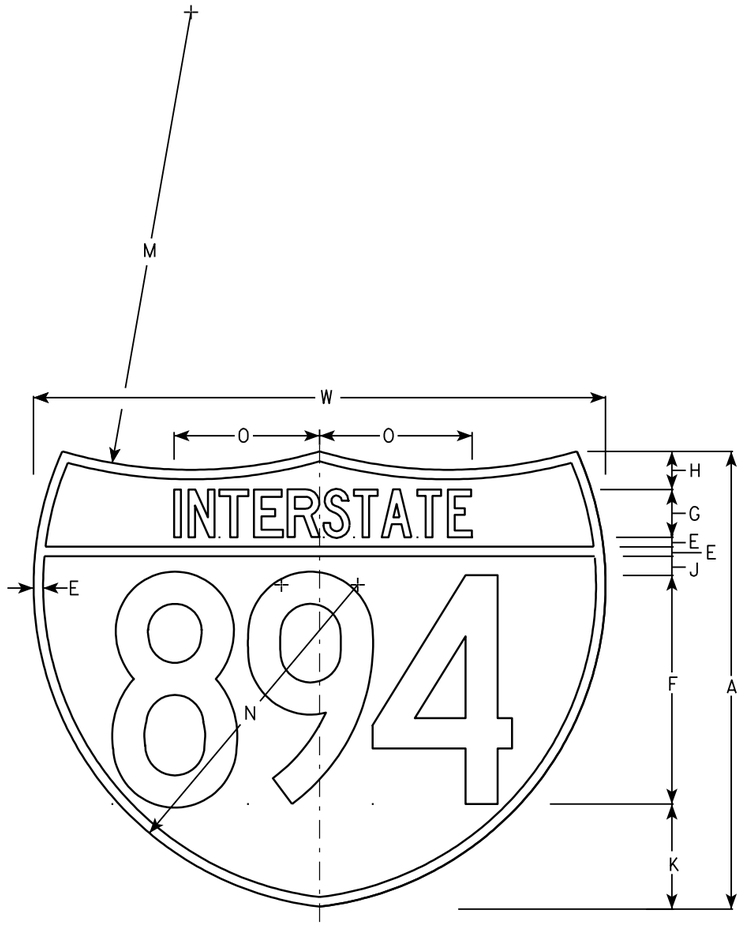
WISDOT/CADDS SHEET 42

7

7



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

7

7

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

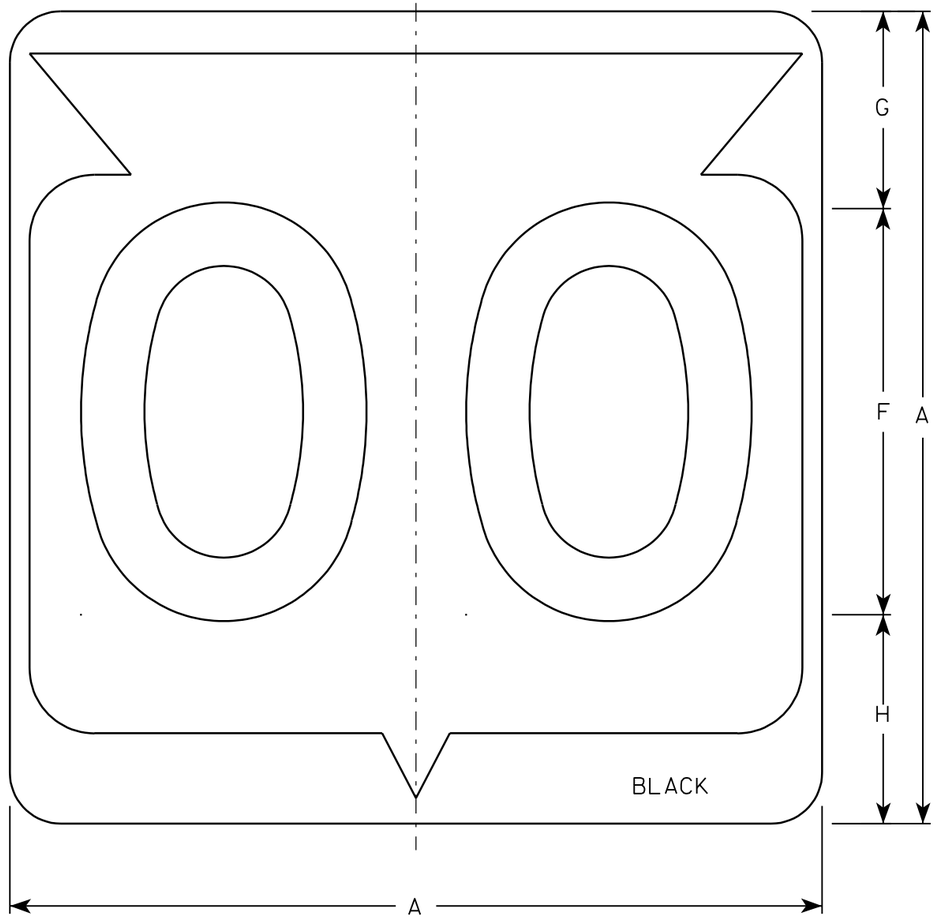
INTERSTATE ROUTE MARKER M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

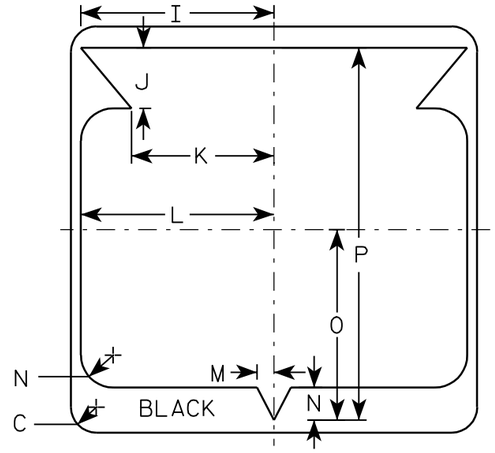
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 483	E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

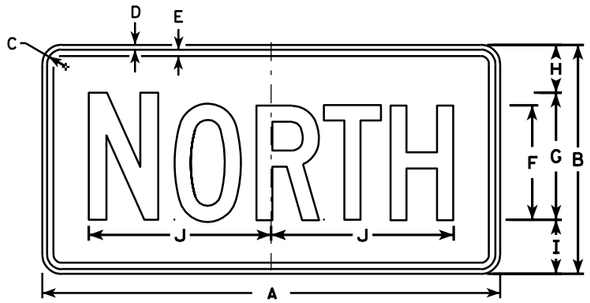
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

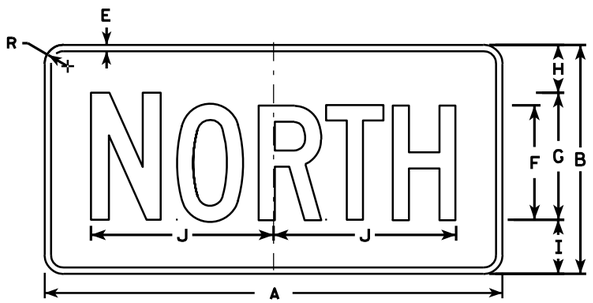
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

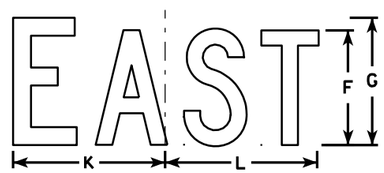
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 484	E



M3-1
MK3-1
MO3-1



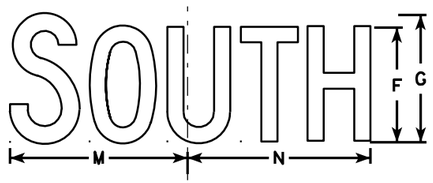
MB3-1
MG3-1
MM3-1
MN3-1



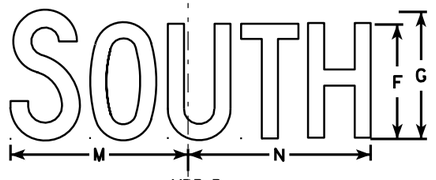
M3-2
MK3-2
MO3-2



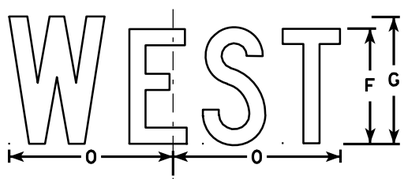
MB3-2
MG3-2
MM3-2
MN3-2



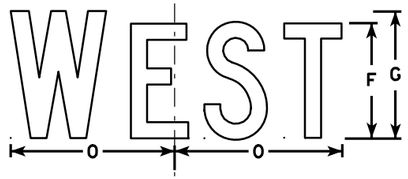
M3-3
MK3-3
MO3-3



MB3-3
MG3-3
MM3-3
MN3-3



M3-4
MK3-4
MO3-4



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective) Message - Black
   MB3-1 thru MB3-4 Background - Blue Message - White - Type H Reflective (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective Message - Green
   MN3-1 thru MN3-4 Background - Brown Message - White - Type H Reflective
   M03-1 thru M03-4 Background - Orange - Reflective Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

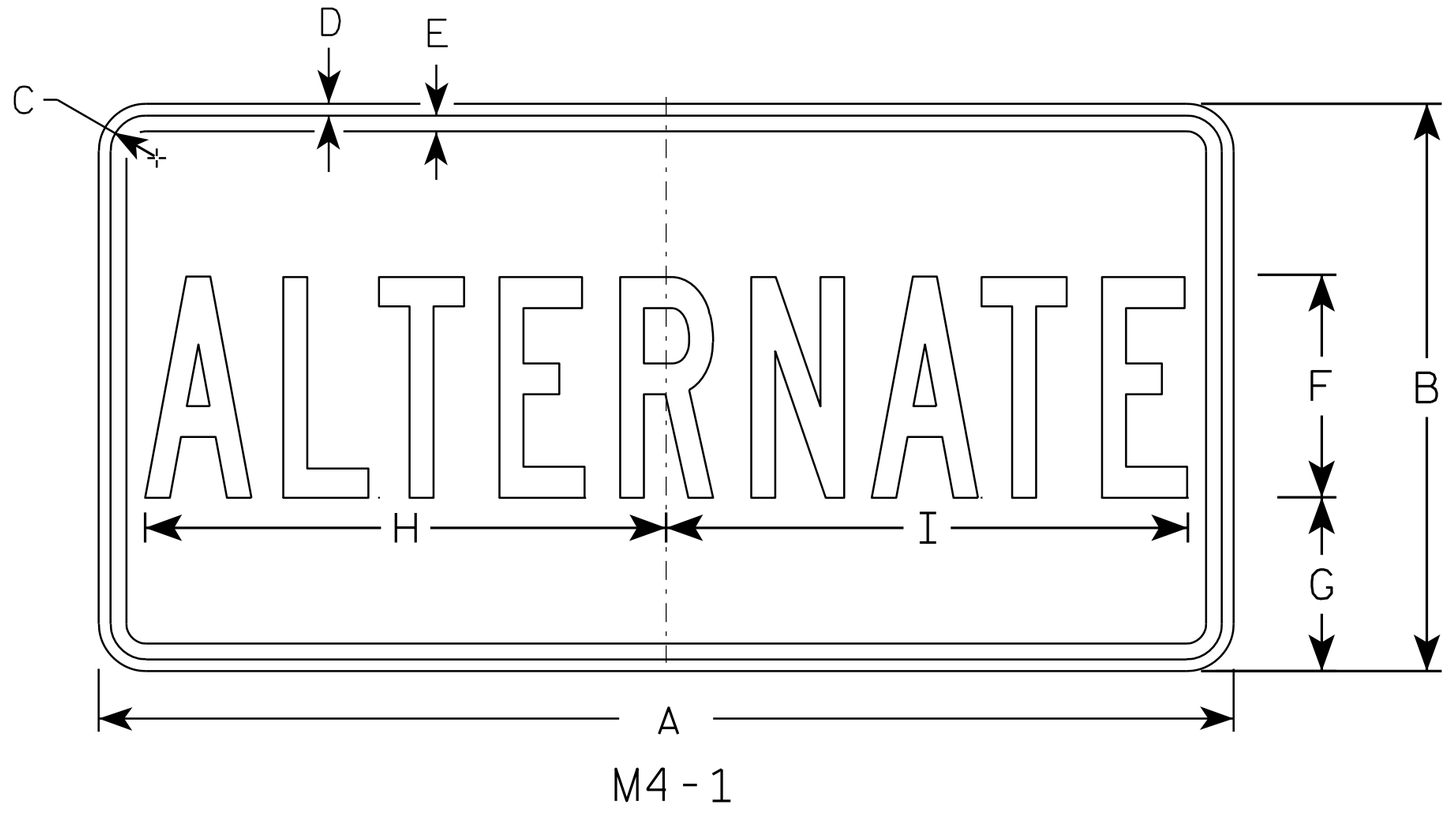
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 485	E



M4 - 1

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See Note 5
   Message - See note 5
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-1 Background - White - Type H Reflective
   Message - Black

   MB4-1 Background - Blue
   Message - White - Type H Reflective

   M04-1 Background - Orange - Reflective
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 ½	⅜	⅜	4	4	9 ¾	9 ½																		2.00
3	36	18	1 ½	⅜	½	7	5 ½	16 ⅜	16 ½																		4.5
4	36	18	1 ½	⅜	½	7	5 ½	16 ⅜	16 ½																		4.5
5	36	18	1 ½	⅜	½	7	5 ½	16 ⅜	16 ½																		4.5

STANDARD SIGN
M4 - 1

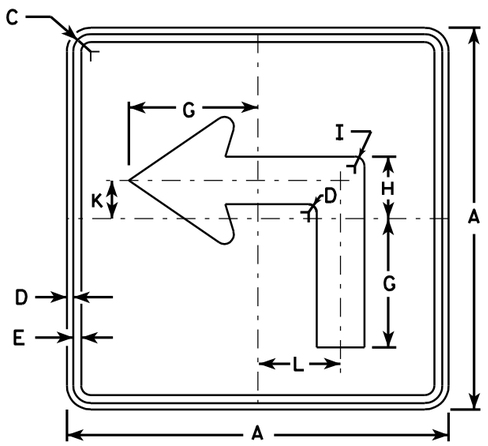
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

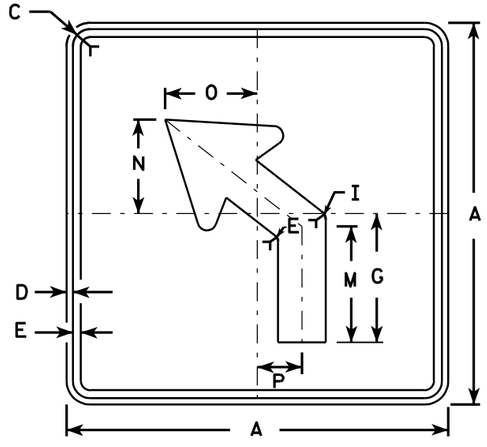
DATE 11/10/10 PLATE NO. M4-1.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 486 | E

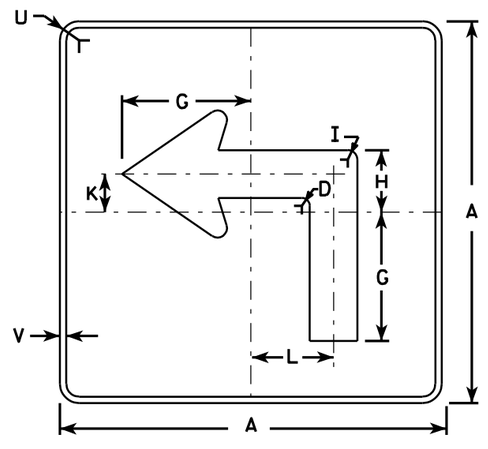
7



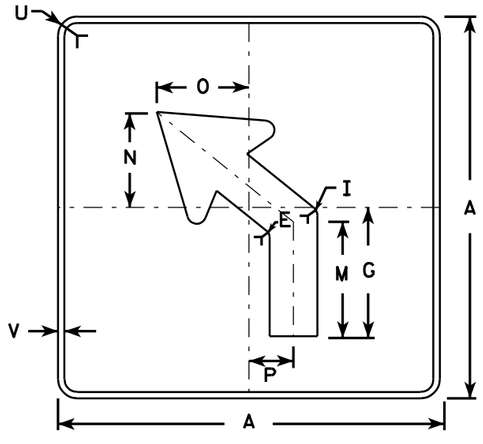
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



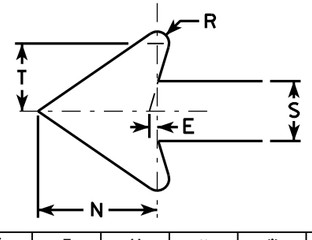
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H Reflective
   MG5-1 and MG5-2 Background - Green
   Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green
   Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

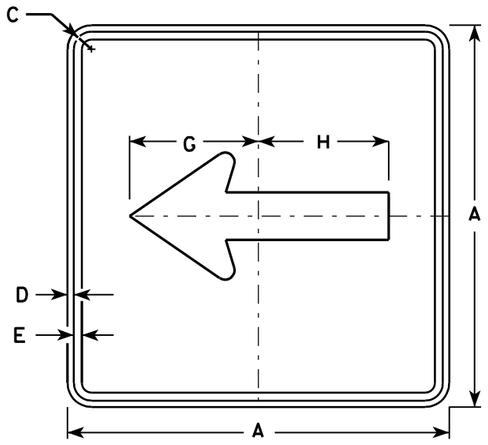
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

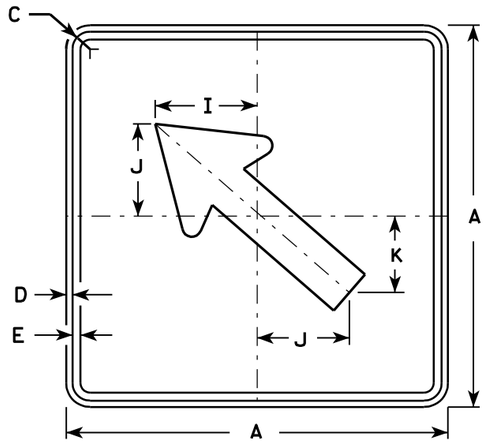
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

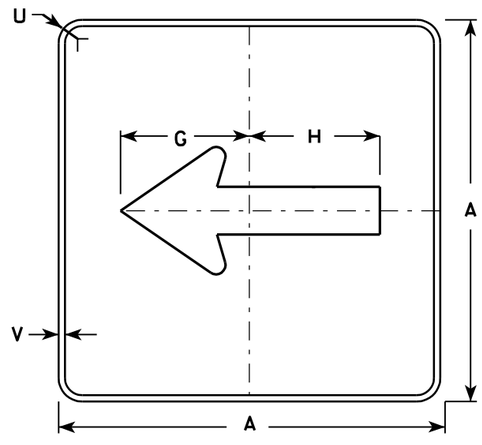
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 487 | E



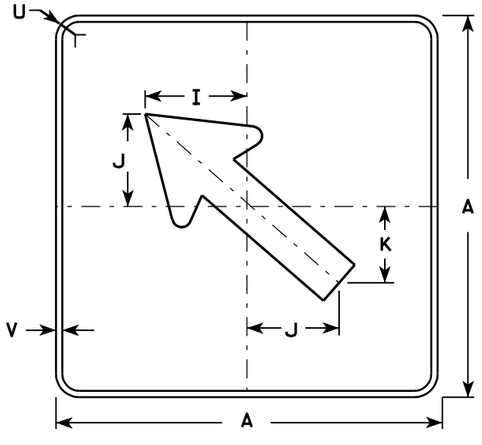
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective
   Message - Black

   MB6-1 and MB6-2 Background - Blue
   Message - White - Type H Reflective

   MG6-1 and MG6-2 Background - Green
   Message - White - Type H Reflective

   MK6-1 and MK6-2 Background - Green
   Message - White - Type H Reflective

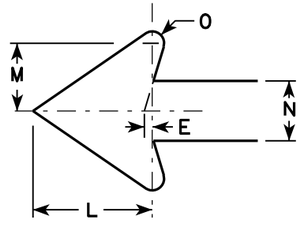
   MM6-1 and MM6-2 Background - White - Type H Reflective
   Message - Green

   MN6-1 and MN6-2 Background - Brown
   Message - White - Type H Reflective

   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black

   MP6-1 and MP6-2 Background - White - Type H Reflective
   Message - Blue

   MR6-1 and MR6-2 Background - Brown
   Message - Yellow - Type H Reflective



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

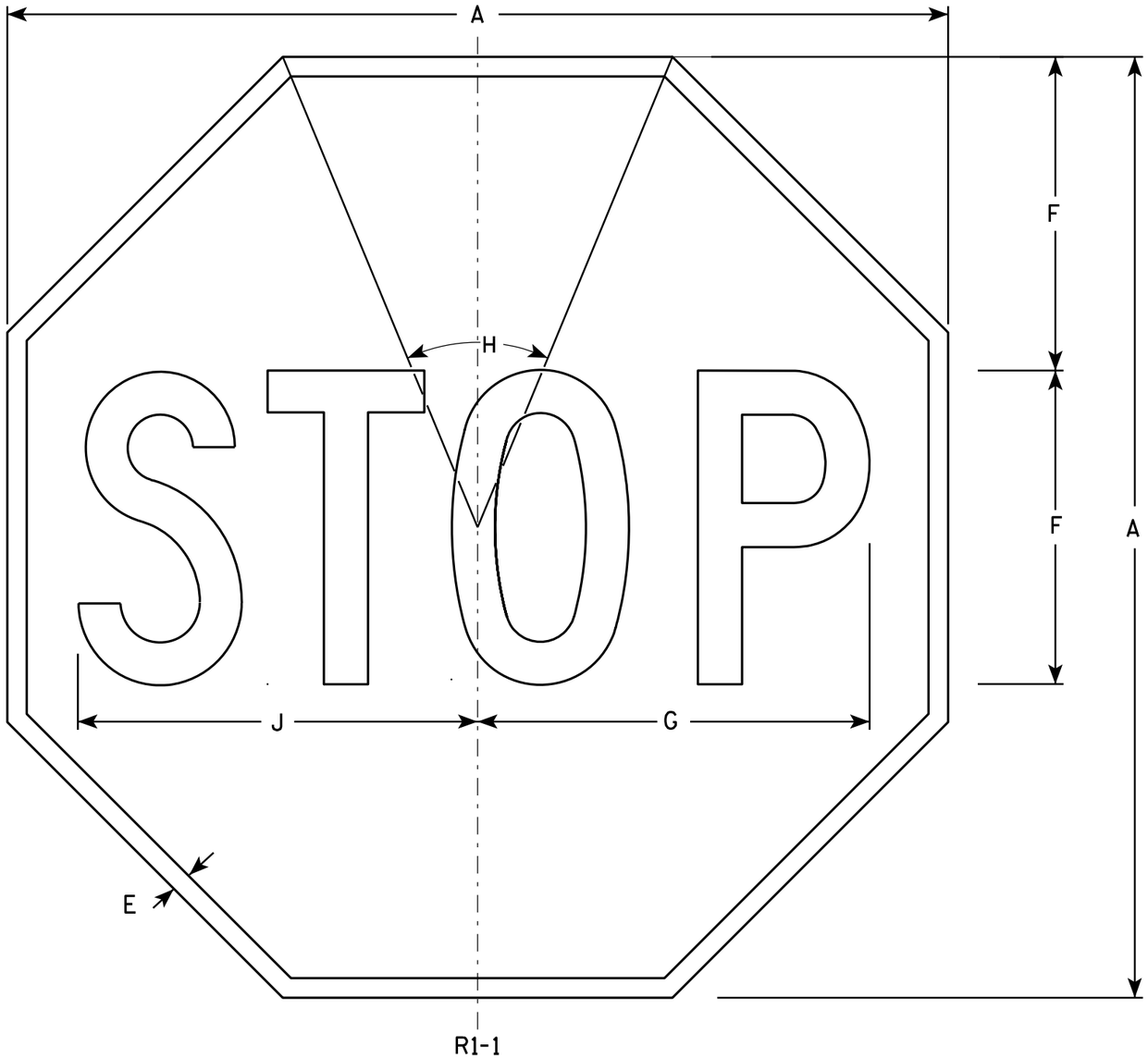
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 488	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

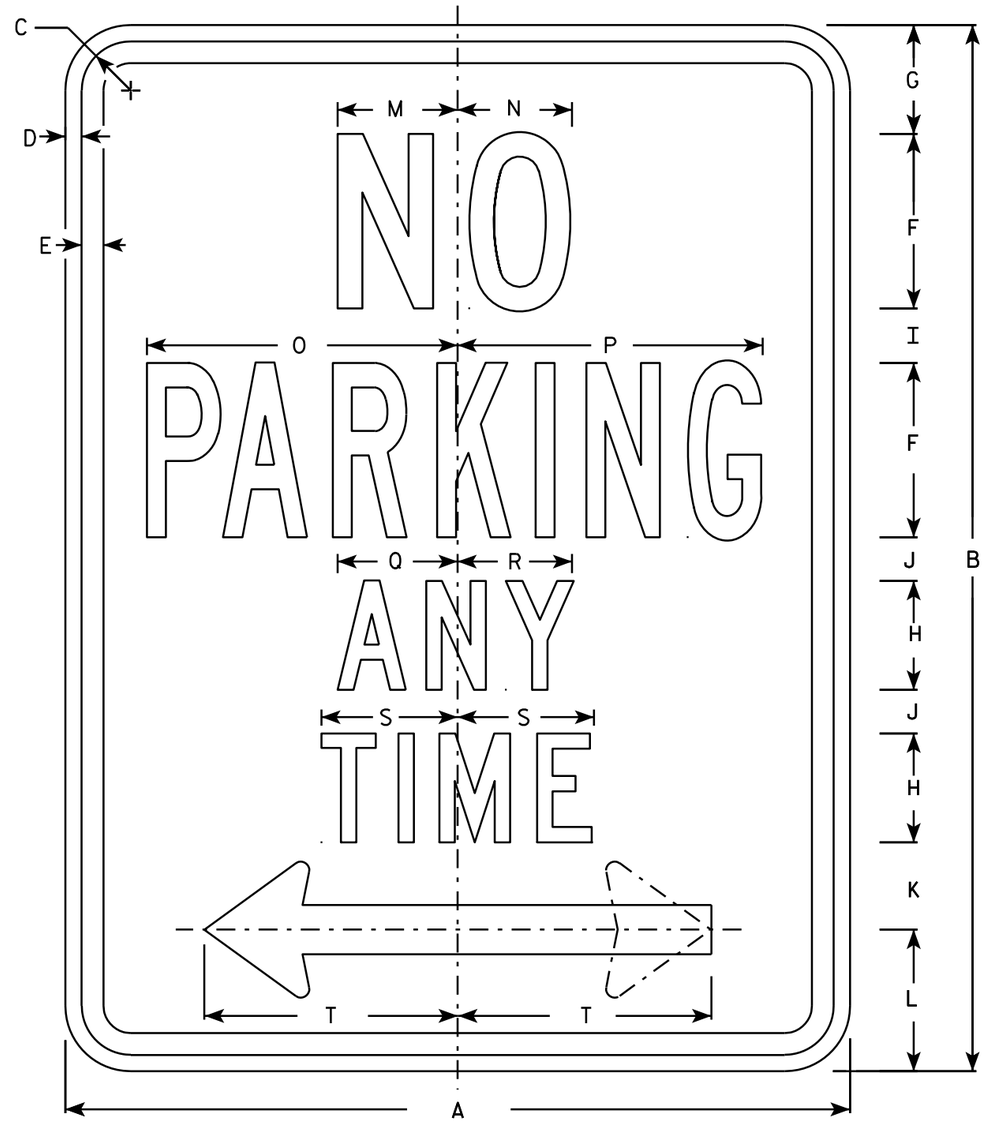
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

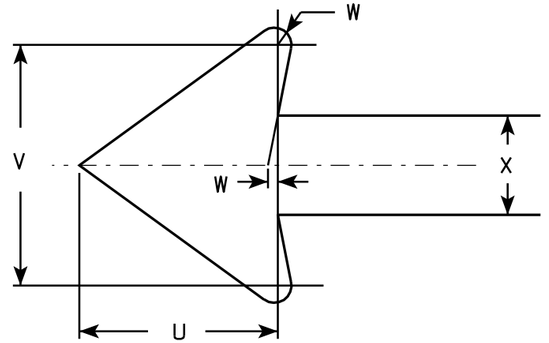
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 489	E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

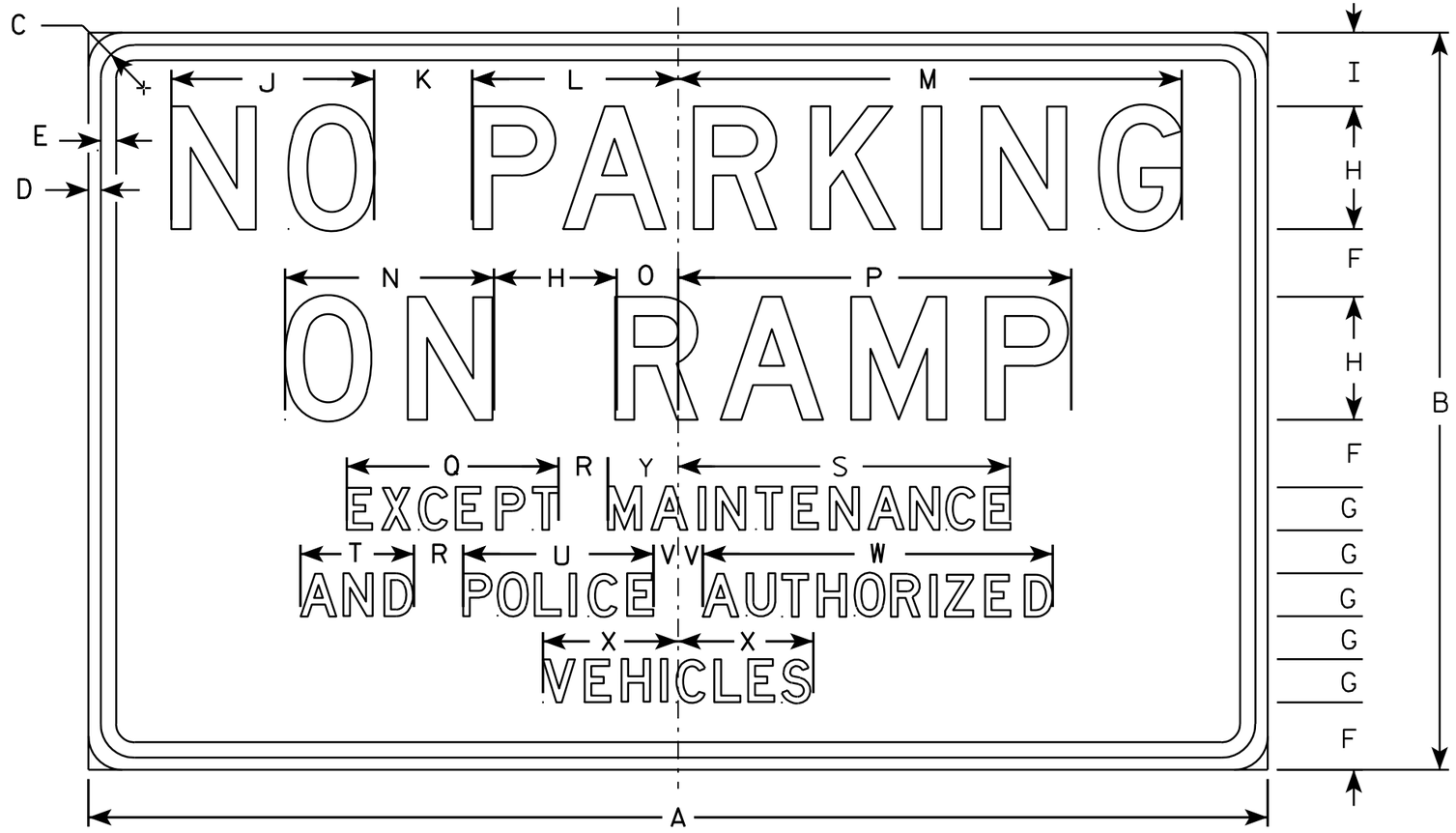
STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 490	E



R7-64

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - Lines 1& 2 and Border are RED
   Lines 3, 4, & 5 are BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3	48	30	1 3/8	1/2	5/8	2 3/4	1 3/4	5	3	8 1/4	4	8 3/8	20 1/2	8 1/2	2 1/2	16	8 5/8	2	13 5/8	4 5/8	7 3/4	1	14 1/4	5 1/2			10.0
4																											
5																											

STANDARD SIGN
R7-64

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-64.3

PROJECT NO:

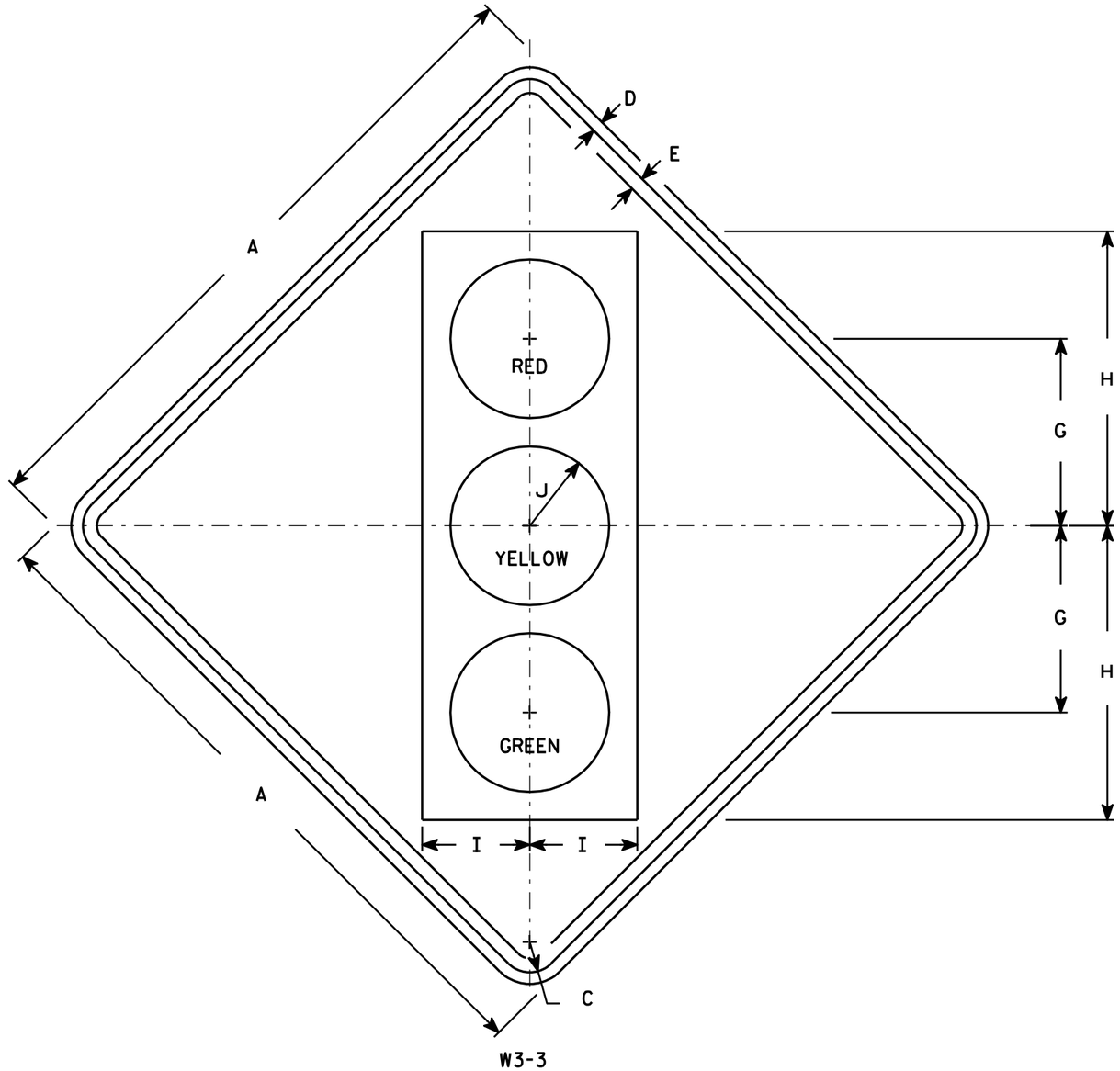
SHEET NO: 491 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R764.DGN PLOT DATE : 31-MAR-2011 13:47 PLOT BY : mscsja PLOT SCALE :

WISDOT/CADDS SHEET 42

7

7



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

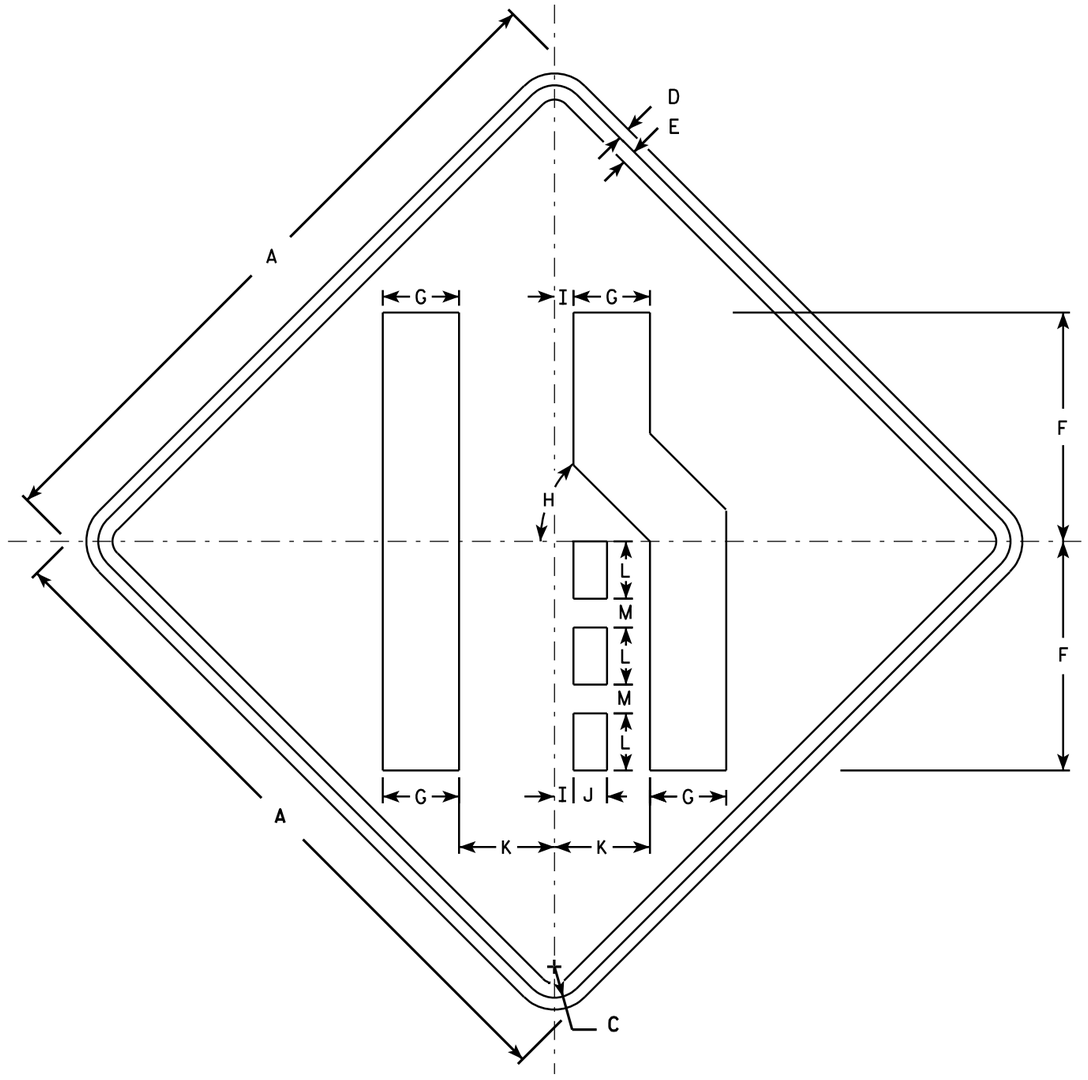
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 492 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

WISCONSIN DEPT OF TRANSPORTATION

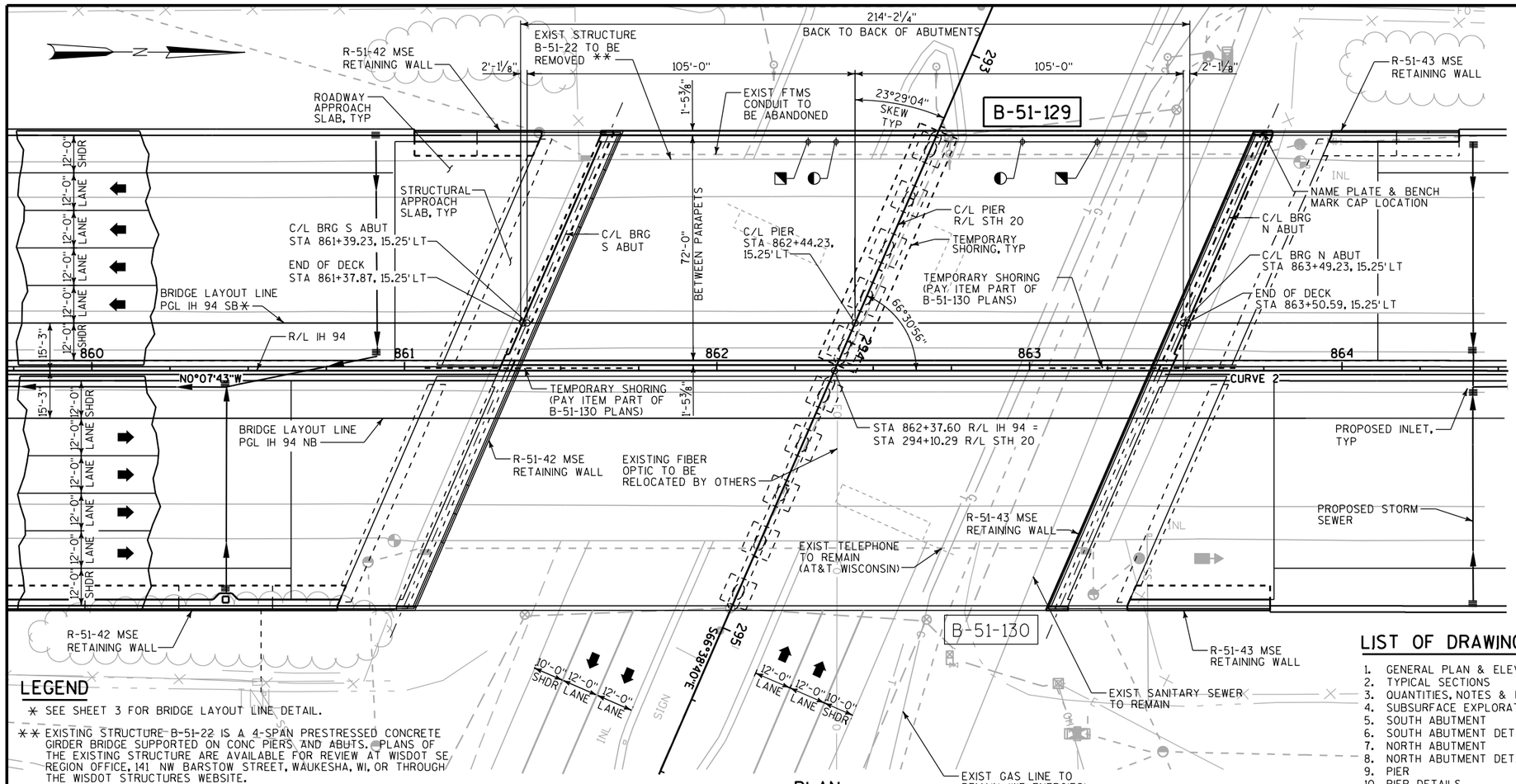
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 493 E

STATE PROJECT NUMBER
1033-02-72



LEGEND

✳ SEE SHEET 3 FOR BRIDGE LAYOUT LINE DETAIL.

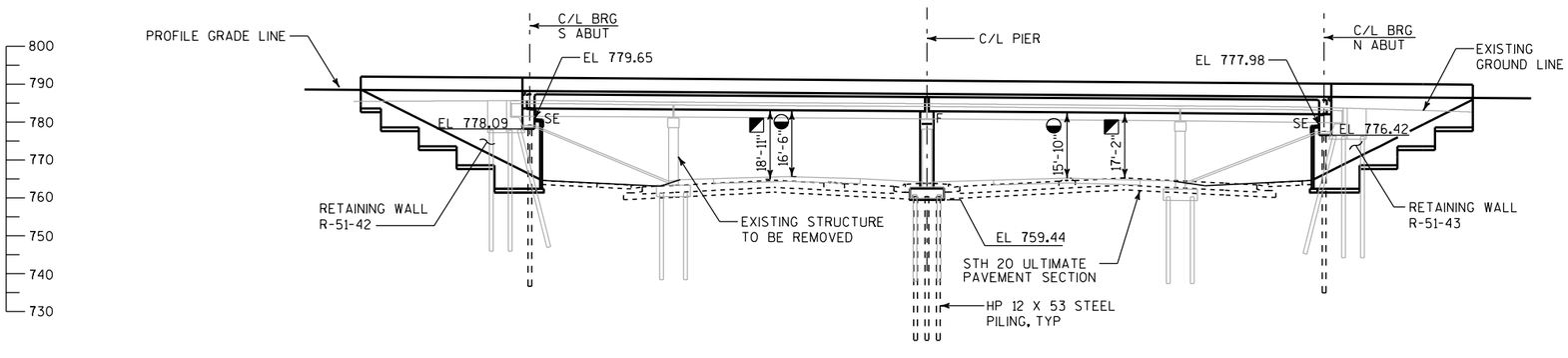
✳✳ EXISTING STRUCTURE B-51-22 IS A 4-SPAN PRESTRESSED CONCRETE GIRDER BRIDGE SUPPORTED ON CONC PIERS AND ABUTS. PLANS OF THE EXISTING STRUCTURE ARE AVAILABLE FOR REVIEW AT WISDOT SE REGION OFFICE, 141 NW BARSTOW STREET, WAUKESHA, WI, OR THROUGH THE WISDOT STRUCTURES WEBSITE.

◐ POINT OF MINIMUM VERTICAL CLEARANCE INTERIM CONDITION

◥ POINT OF MINIMUM VERTICAL CLEARANCE ULTIMATE CONDITION

PLAN

(2 SPAN - 45W" PRESTRESSED GIRDERS)



ELEVATION

(LOOKING WEST)

DESIGN DATA

DESIGN SPECIFICATION: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.18
OPERATING RATING FACTOR: RF = 1.66
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

STRUCTURE IS DESIGNED FOR A 1½" WEARING SURFACE PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY:
- SUPERSTRUCTURE (HPC) ..... f'c = 4,000 psi
- SUBSTRUCTURE ..... f'c = 4,000 psi
- 45W-INCH PRESTRESSED GIRDERS ..... f'c = 8,000 psi

BAR STEEL REINFORCEMENT ..... fy = 60,000 psi
STAINLESS STEEL BAR REINFORCEMENT ..... fy = 60,000 psi
STEEL PILING ..... fy = 50,000 psi
PRESTRESSING STRANDS ..... ULTIMATE TENSILE STRENGTH = 270,000 psi

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 12x53 STEEL PILING REQUIRED DRIVING RESISTANCE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD:
- SOUTH ABUTMENT ..... 185 TONS PER PILE
- PIER ..... 160 TONS PER PILE
- NORTH ABUTMENT ..... 185 TONS PER PILE

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.65 USING THE PDA/CAPWAP ACCEPTANCE METHOD TO DETERMINE DRIVEN PILE CAPACITY.
ESTIMATED PILE LENGTHS:
- SOUTH ABUTMENT ..... 90 FEET
- PIER ..... 65 FEET
- NORTH ABUTMENT ..... 90 FEET

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTIONS
3. QUANTITIES, NOTES & PROFILE GRADE LINES
4. SUBSURFACE EXPLORATION
5. SOUTH ABUTMENT
6. SOUTH ABUTMENT DETAILS
7. NORTH ABUTMENT
8. NORTH ABUTMENT DETAILS
9. PIER
10. PIER DETAILS
11. PIER BARRIER WALL DETAILS 1
12. PIER BARRIER WALL DETAILS 2
13. 45W" PRESTRESSED GIRDER
14. 45W" PRESTRESSED GIRDER DETAILS
15. SUPERSTRUCTURE FRAMING PLAN
16. SUPERSTRUCTURE REINFORCEMENT
17. SUPERSTRUCTURE CROSS SECTION
18. SUPERSTRUCTURE DETAILS
19. STEEL DIAPHRAGM
20. SINGLE SLOPE PARAPET 42SS MODIFIED
21. STRUCTURAL APPROACH SLAB
22. STRUCTURAL APPROACH SLAB DETAILS
23. AESTHETIC DETAILS

TRAFFIC DATA

STH 20	IH 94
A.D.T. = 29,440 (2005)	A.D.T. = 82,770 (2005)
A.D.T. = 40,050 (2030)	A.D.T. = 114,600 (2035)
R.D.S. = 50 MPH	R.D.S. = 70 MPH

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

NO.	DATE	REVISION	BY

Milwaukee Transportation Partners LLC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher 11/11/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

KARL E. SCHMID E-30812 MILWAUKEE, WI — WISCONSIN — PROFESSIONAL ENGINEER

11/08/2013

STRUCTURE B-51-129

IH 94 EB/USH 41 SB OVER STH 20

COUNTY	TOWN ~~/CITY/VILLAGE~~
RACINE	YORKVILLE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
DA/BM	KES	GLM	KES

GENERAL PLAN & ELEVATION

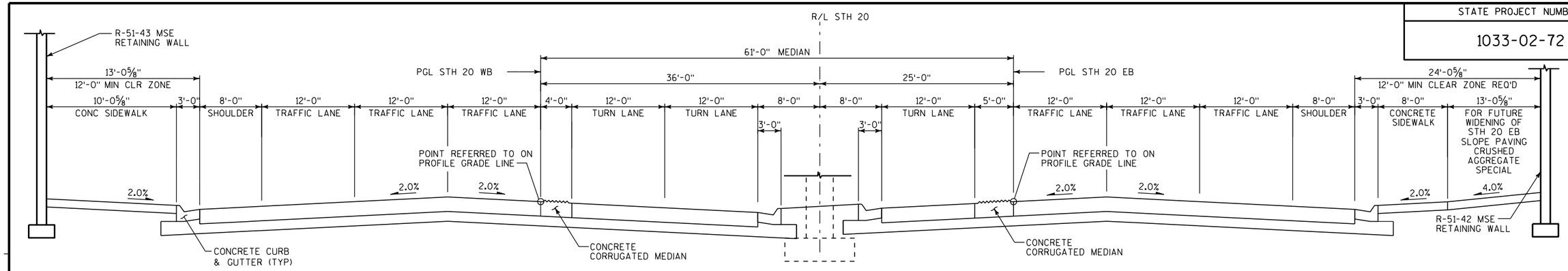
SHEET 1 OF 23

494

8

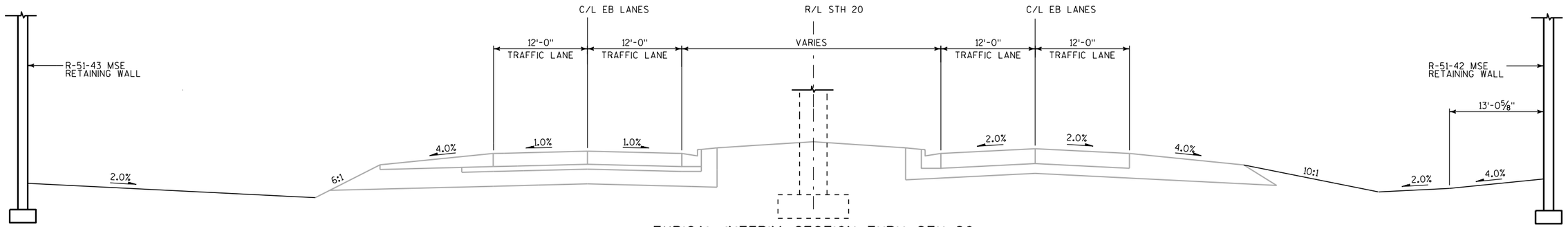
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STATE PROJECT NUMBER
1033-02-72



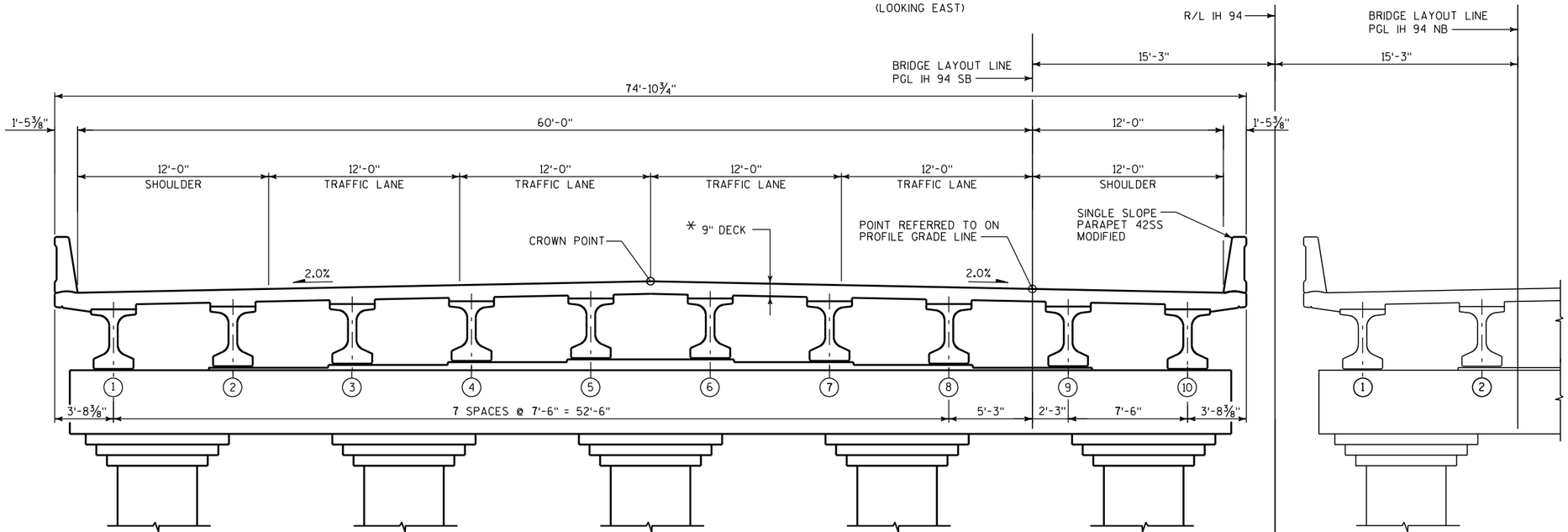
TYPICAL ULTIMATE SECTION THRU STH 20

(LOOKING EAST)



TYPICAL INTERIM SECTION THRU STH 20

(LOOKING EAST)



* 9" DECK THICKNESS INCLUDES A 1½" SACRIFICIAL WEARING SURFACE PLACED INTERGRAL WITH THE DECK AT INITIAL CONSTRUCTION.

TYPICAL SECTION THRU IH 94

(LOOKING NORTH)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

DRAWN BY	GLM	PLANS CK'D.	KES

TYPICAL SECTIONS

SHEET 2 OF 23

495

8

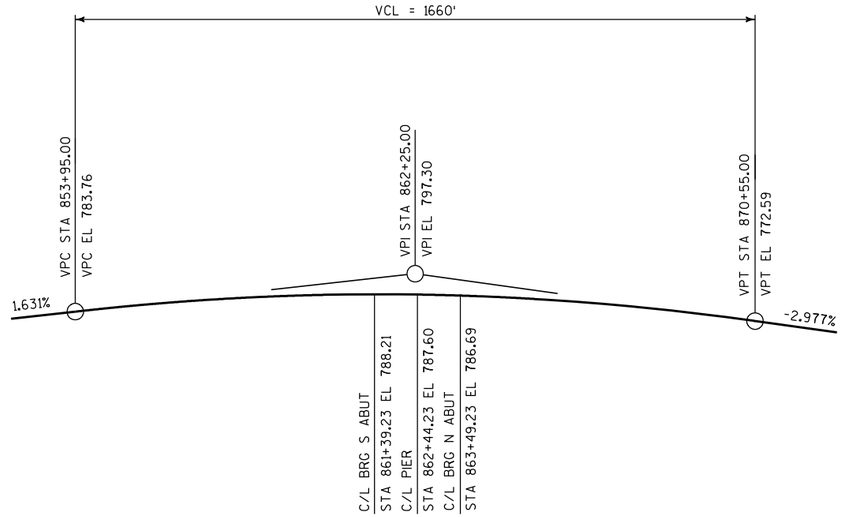
FILE NAME : S:\FinalDesign\20\10330272_M\Structs\B-51-129\cds\B51129_080102_ts.dgn PLOT DATE : 08-NOV-2013 14:17 PLOT BY : MSCKES PLOT NAME : B51129_080102_ts PLOT SCALE : 8:1

STATE PROJECT NUMBER
1033-02-72

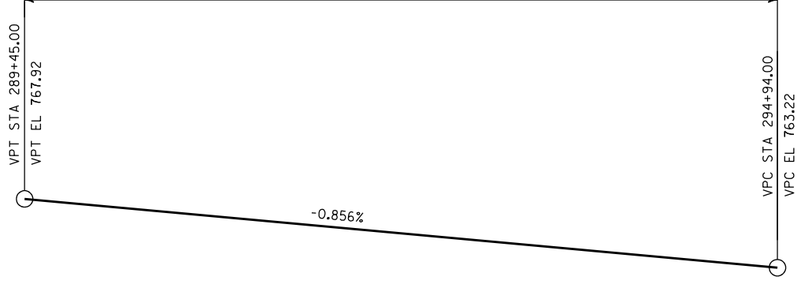
TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	SOUTH APPR. SLAB	SOUTH ABUTMENT	PIER	NORTH ABUTMENT	NORTH APPR. SLAB	SUPER	TOTAL
203.0200	REMOVING OLD STRUCTURE STATION 862+44.2	LS	----------	----------	----------	----------	----------	----------	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-51-129	LS	----------	----------	----------	----------	----------	----------	1
206.6010.S	TEMPORARY SHORING	SF	----------	----------	1,200	----------	----------	----------	1,200
210.0100	BACKFILL STRUCTURE	CY	----------	180	----------	180	----------	----------	360
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	225	----------	----------	----------	225	----------	450
502.0100	CONCRETE MASONRY BRIDGES	CY	21	59	178	59	21	----------	338
502.3200	PROTECTIVE SURFACE TREATMENT	SY	20	----------	----------	----------	20	210	250
503.0146	PRESTRESSED GIRDER I TYPE 45W-INCH	LF	----------	----------	----------	----------	----------	2,108	2,108
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	----------	----------	4,140	----------	----------	----------	4,140
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	15,060	4,770	31,660	4,810	14,980	158,470	229,750
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	----------	10	20	10	----------	----------	40
506.4000	STEEL DIAPHRAGMS B-51-129	EACH	----------	----------	----------	----------	----------	36	36
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	----------	17	----------	17	----------	----------	34
517.1010.S.0001	CONCRETE STAINING B-51-129	SF	----------	285	2,650	295	----------	9,490	12,720
550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	----------	1,170	2,925	1,170	----------	----------	5,265
604.0400	SLOPE PAVING CONCRETE	SY	----------	18	----------	18	----------	----------	36
SPV.0035.4000	HPC MASONRY STRUCTURES	CY	74	----------	----------	----------	74	657	805
SPV.0060.4100	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	----------	2	3	2	----------	----------	7
SPV.0060.4110	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	----------	2	3	2	----------	----------	7
SPV.0085.4300	BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES	LB	----------	----------	----------	----------	----------	2,550	2,550
SPV.0165.4700	LONGITUDINAL GROOVING BRIDGE DECK	SF	1,435	----------	----------	----------	1,435	15,320	18,190
	NON-BID ITEMS								
	PREFORMED JOINT FILLER	SIZE							1/2" & 3/4"
	NON-BITUMINOUS JOINT FILLER	SIZE							1/2" & 3/4"
	NAME PLATE	EACH							1

NOTE: ALL ITEMS ARE CATEGORY 2000



PROFILE GRADE LINE - IH 94 SB



PROFILE GRADE LINE - STH 20 EB & WB

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

CONSTRUCTION SHALL BE STAGED WITH STRUCTURE B-51-130 CONSTRUCTED IN THE FIRST STAGE. IH 94 TRAFFIC SHALL BE MAINTAINED ON EXISTING STRUCTURE B-51-22.

BAR STEEL REINFORCEMENT SHALL BE PLACED WITH 2" OF CLEAR CONCRETE COVER UNLESS OTHERWISE NOTED. THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE DECK SHALL BE PLACED WITH 3 1/2" OF CLEAR CONCRETE COVER.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NGVD DATUM.

ALL REINFORCING BARS ARE ENGLISH. THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

THE SLOPE OF THE FILL IN FRONT OF THE SOUTH ABUTMENT SHALL BE COVERED WITH SLOPE PAVING TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMIT OF EXCAVATION FOR STRUCTURES.

THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE DEPTH OF 2 1/2", WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

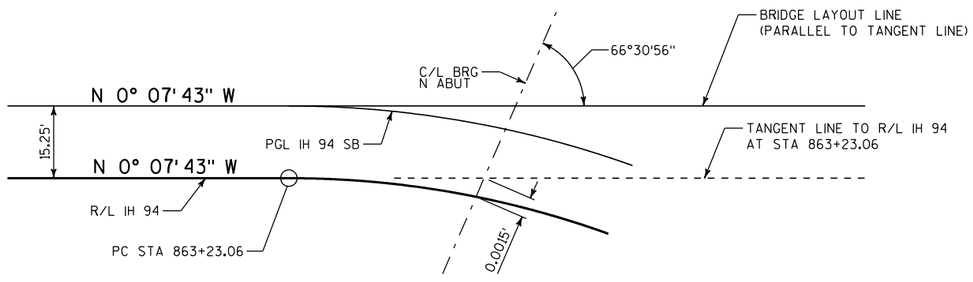
THE EXISTING BRIDGE B-51-22 IS A FOUR SPAN PRESTRESSED CONCRETE GIRDER BRIDGE. THE ENTIRE STRUCTURE SHALL BE REMOVED. EXISTING PILING WITHIN THE FOOTPRINT OF THE PROPOSED PIER AND PROPOSED MSE WALLS AT THE ABUTMENTS SHALL BE CUT OFF 1'-0" BELOW THE BOTTOM OF THE PROPOSED FOOTING OR ABUTMENT. ALL OTHER EXISTING PILING SHALL BE CUT OFF 2'-0" BELOW SUBGRADE.

EXST STH 20 PAV'T ELEVATIONS

R/L STH 20 STATION	EXST ELEVATIONS	
	EB CROWN	WB CROWN
293+00	766.51	766.43
293+25	766.23	766.35
293+50	766.17	766.17
293+75	766.02	765.99
294+00	765.88	765.80
294+25	765.73	765.62
294+50	765.58	765.43
294+75	765.44	765.33
295+00	765.32	765.20
295+25	765.24	765.09

HORIZONTAL CURVE DATA

(CURVE 2)
PI = STA 867+54.65
N = 186023.63
E = 594013.56
DELTA = 0°21'35"
D = 0°02'30"
R = 137503.87
T = 431.59
L = 863.17
E = 0.68
PC = STA 863+23.06
PT = STA 871+86.24



BRIDGE LAYOUT LINE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

DRAWN BY GLM | PLANS CK'D. KES

QUANTITES, NOTES AND PROFILE GRADE LINES

SHEET 3 OF 23

496

8

8

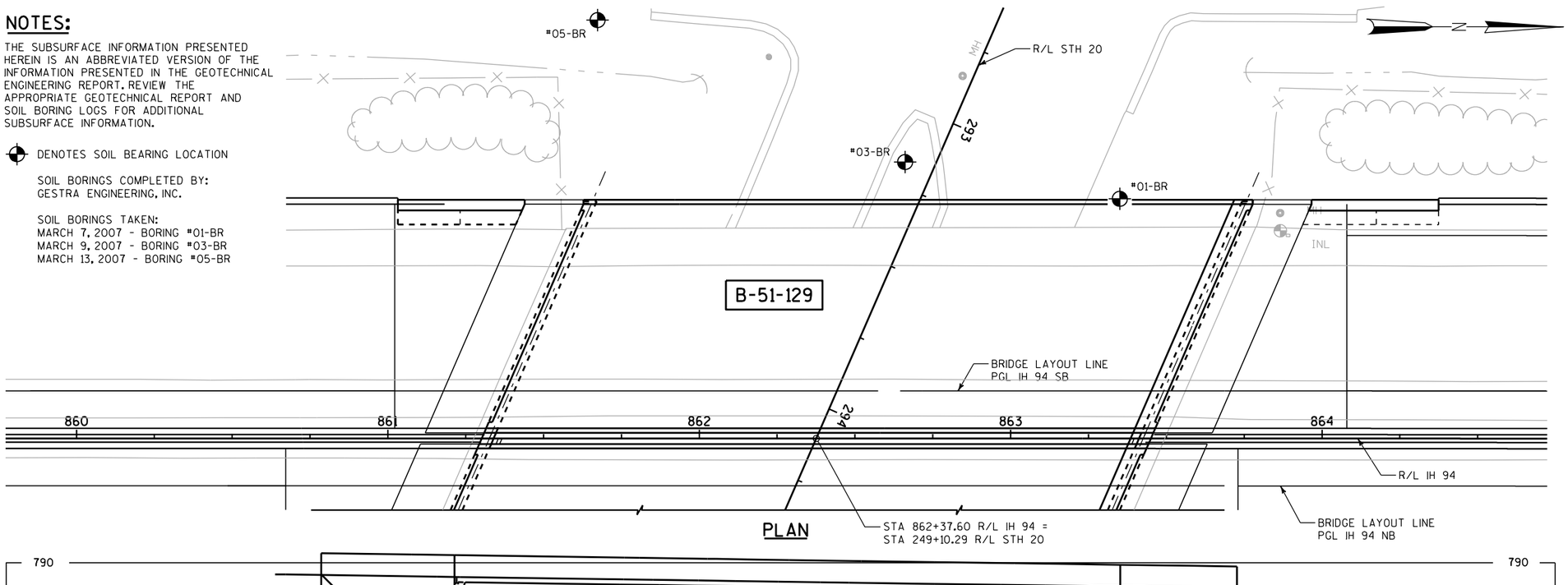
NOTES:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

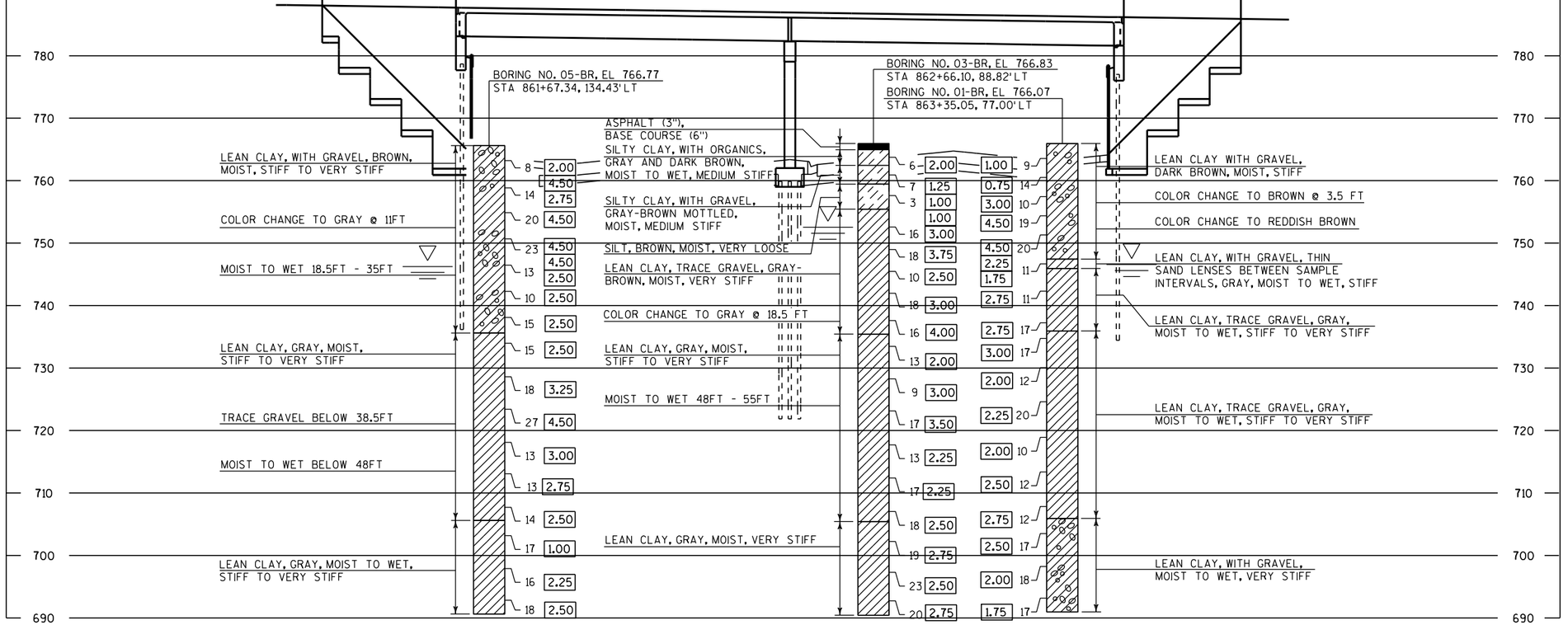
⊕ DENOTES SOIL BEARING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING, INC.

SOIL BORINGS TAKEN:
MARCH 7, 2007 - BORING #01-BR
MARCH 9, 2007 - BORING #03-BR
MARCH 13, 2007 - BORING #05-BR



PLAN



ELEVATION

STATE PROJECT NUMBER

1033-02-72

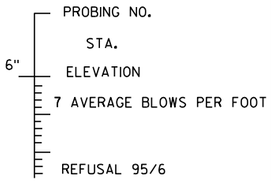
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL / FILL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

DRAWN BY GLM | PLANS CK'D. KES

SUBSURFACE EXPLORATION

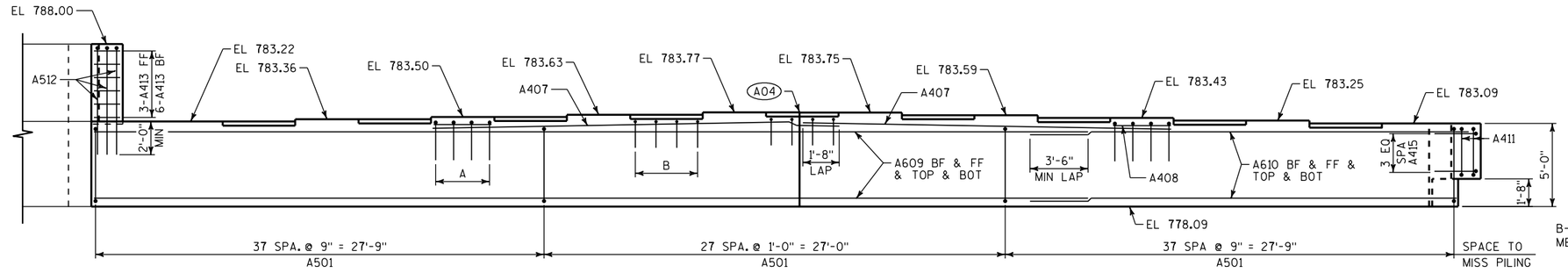
SHEET 4 OF 23

497

8

8

STATE PROJECT NUMBER
1033-02-72

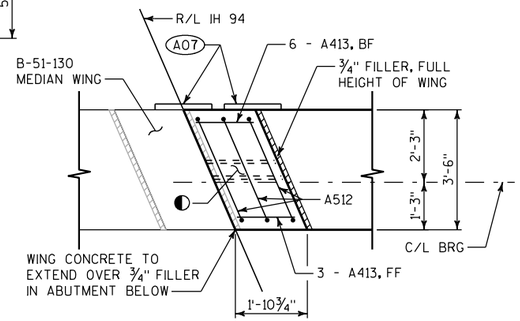


A - 3 SPA @ 1'-1" = 3'-3", ADD'T A406 SEAT REINF REQ'D @ GIRDERS 3 THRU 8

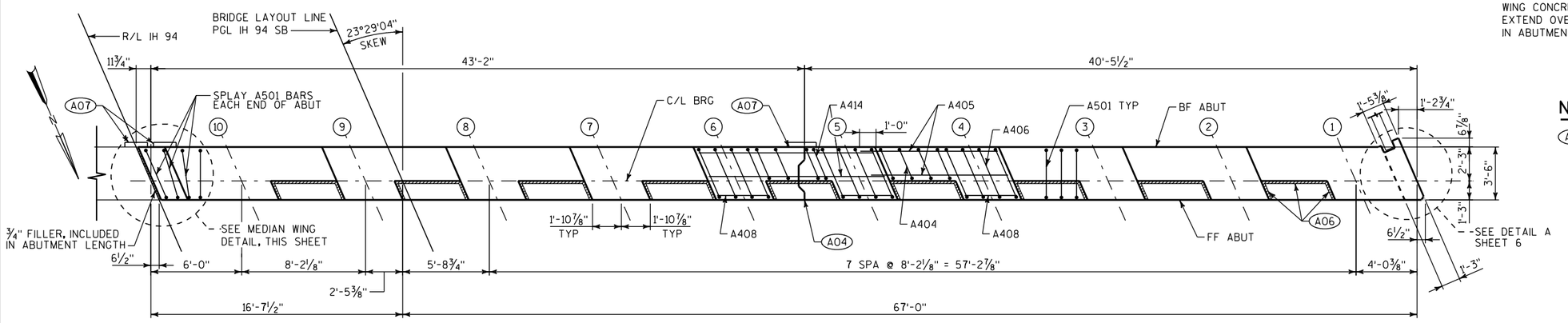
B - 3 SPA @ 1'-3" = 3'-9", A404 BETWEEN GIRDER SEATS REQ'D @ GIRDERS 3 THRU 9

ELEVATION

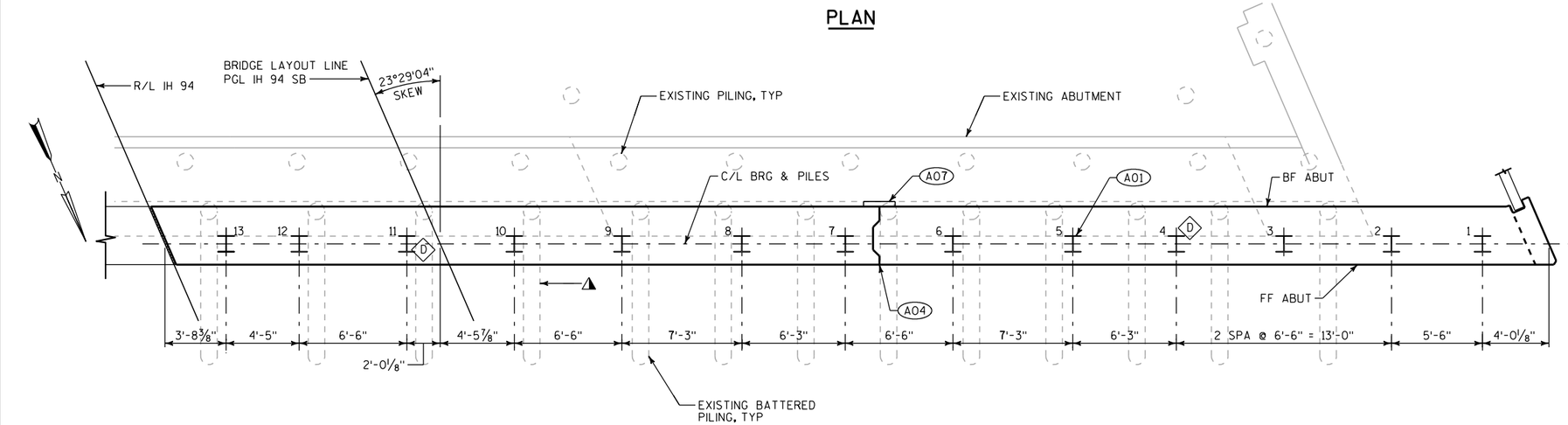
(LOOKING SOUTH)



MEDIAN WING DETAIL



PLAN



PILE PLAN

NOTES:

A01 HP12X53 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 185 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD.
ESTIMATED PILE LENGTH = 90 FEET

NOTE - PROPOSED PILES MAY BE MOVED UP TO 8" ALONG C/L BRG & PILES TO AVOID CONFLICTS WITH EXISTING PILES. IF GREATER ADJUSTMENT IS NECESSARY, CONTACT THE ENGINEER FOR ADDITIONAL INSTRUCTIONS BEFORE PROCEEDING.

LOCATION OF EXISTING PILES IS SHOWN BASED ON AS-BUILT INFORMATION ONLY. FIELD VERIFY PILE LOCATIONS IMMEDIATELY AFTER EXPOSURE AND NOTIFY THE ENGINEER OF ANY DEVIATIONS NOTED.

D DYNAMIC PILE LOAD TESTING.

A04 KEYED CONST JOINT FORMED BY BEVELED 2" x 8".

A06 ¾" CORK FILLER UP VERT BEAM SEAT FACES, TYP.

A07 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

◭ CUT OFF PILING IN EXISTING FOOTING THAT IS IN THE FOOTPRINT OF THE PROPOSED MSE WALL 1'-0" BELOW BOTTOM OF PROPOSED MSE WALL LEVELING PAD. DO NOT INCORPORATE EXISTING PILING INTO PROPOSED ABUTMENT.

◐ CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" KEYWAY WITH MEMBRANE ON BACKFACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

DRAWN BY GLM | PLANS CK'D. KES

SOUTH ABUTMENT

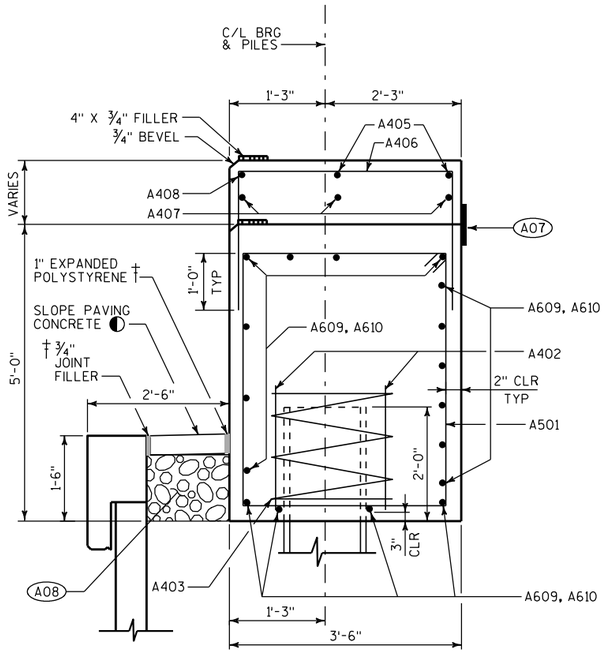
SHEET 5 OF 23

498

8

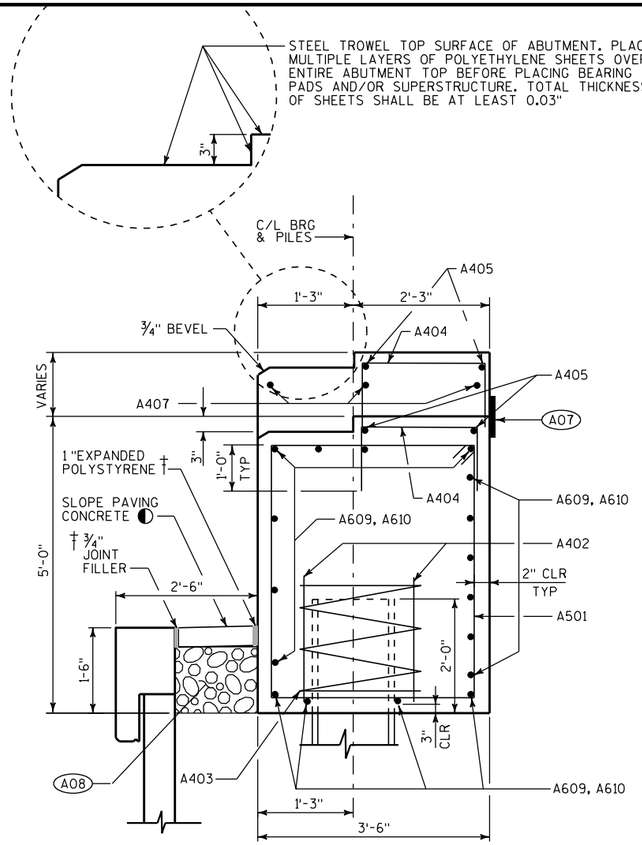
8

STATE PROJECT NUMBER
1033-02-72



SECTION THRU BODY

(AT GIRDER SEATS)

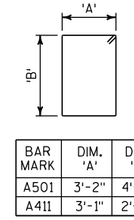


SECTION THRU BODY

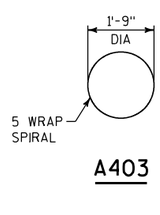
(BETWEEN GIRDER SEATS)

BILL OF BARS

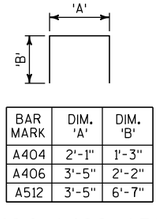
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A501	E	104	15'-6"	X		ABUT BODY STIRRUPS
A402	E	26	2'-3"			ABUT PILES - 2 PER PILE
A403	E	13	28'-0"	X		ABUT PILES - 1 PER PILE
A404	E	36	4'-5"	X		ABUT BODY TOP - BETWEEN BEAM SEATS
A405	E	16	9'-2"			ABUT BODY TOP - HORIZ BETWEEN BEAM SEATS
A406	E	24	7'-7"	X		ABUT BODY TOP - UNDER GIRDERS 3 - 8
A407	E	6	23'-11"			ABUT BODY TOP - HORIZ UNDER GIRDERS 3 - 8
A408	E	6	3'-6"			ABUT BODY TOP - HORIZ UNDER GIRDERS 3 - 8
A609	E	17	60'-0"			ABUT BODY - HORIZ
A610	E	17	27'-2"			ABUT BODY - HORIZ
A411	E	2	12'-6"	X		ABUT BODY END STIRRUPS
A512	E	3	16'-4"	X		MEDIAN WING - VERTICAL TIE
A413	E	9	1'-6"			MEDIAN WING - HORIZONTAL
A414	E	2	11'-7"			ABUT BODY TOP - BETWEEN GIRDERS 5 & 6
A415	E	4	7'-6"	X		ABUT BODY - HORIZ ENDS
A416	E	4	7'-3"	X		ABUT BODY END - HORIZ TIE
A417	E	7	2'-5"	X		ABUT BODY END - HORIZ TIE
A418	E	1	2'-11"			ABUT BODY END - VERT



BAR MARK	DIM. 'A'	DIM. 'B'
A501	3'-2"	4'-4"
A411	3'-1"	2'-11"

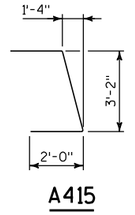


A403

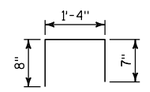


BAR MARK	DIM. 'A'	DIM. 'B'
A404	2'-1"	1'-3"
A406	3'-5"	2'-2"
A512	3'-5"	6'-7"

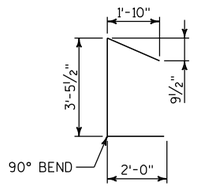
A404, A406, A512



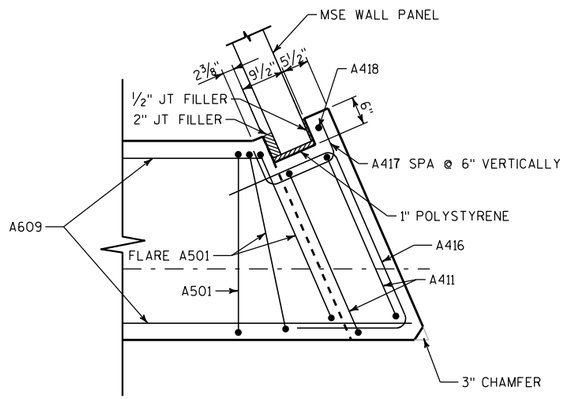
A415



A417



A416

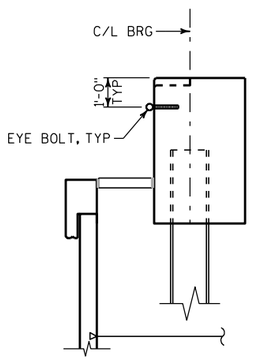


DETAIL A

NOTES:

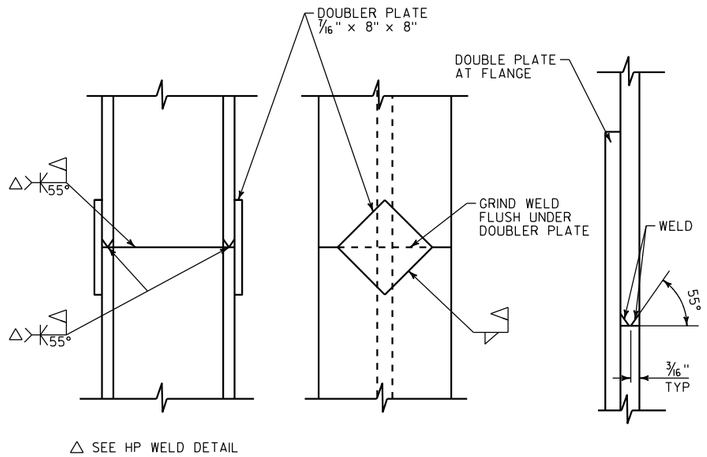
(A07) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A08) SIZE 2 COARSE AGGREGATE OR MSE BACKFILL. COST IS INCLUDED IN THE BID ITEM "SLOPE PAVING CONCRETE".



SECTION THRU ABUT

(SHOWING FALL PROTECTION - FOR EYE BOLT DETAILS AND LOCATIONS, SEE SHEET 8)



PILE SPLICE DETAIL

LEGEND

† SEAL ALL EXPOSED HORIZ & VERT SURFACES OF FILLER WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE

◐ SLOPE CONCRETE PAD DOWN ¾" FROM FRONT FACE OF ABUTMENT TO BACK OF CONC COPING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

DRAWN BY GLM | PLANS CK'D. KES

SOUTH ABUTMENT DETAILS

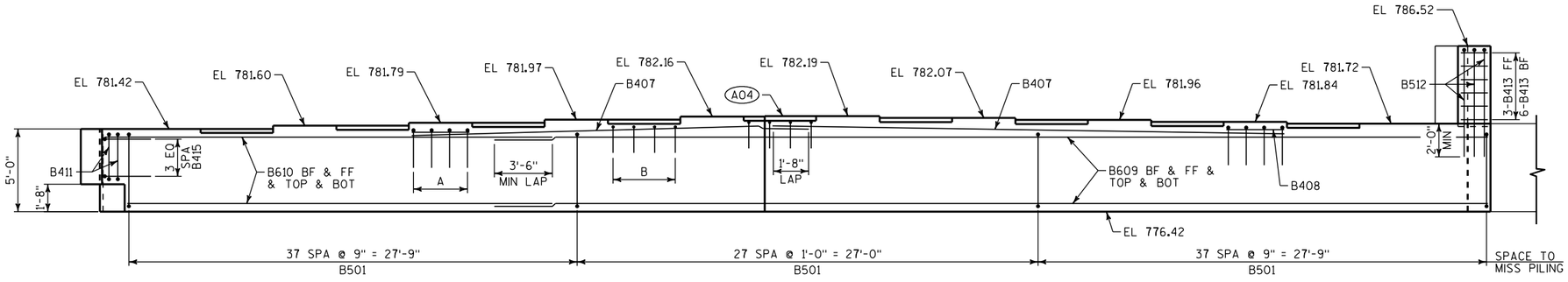
SHEET 6 OF 23

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8

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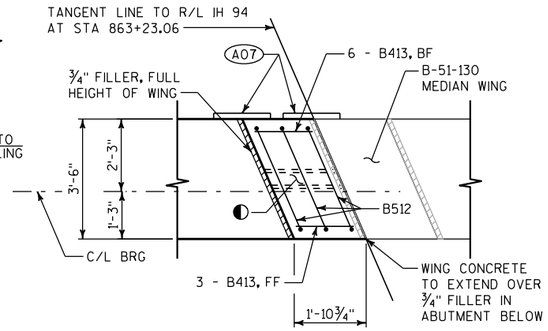


ELEVATION

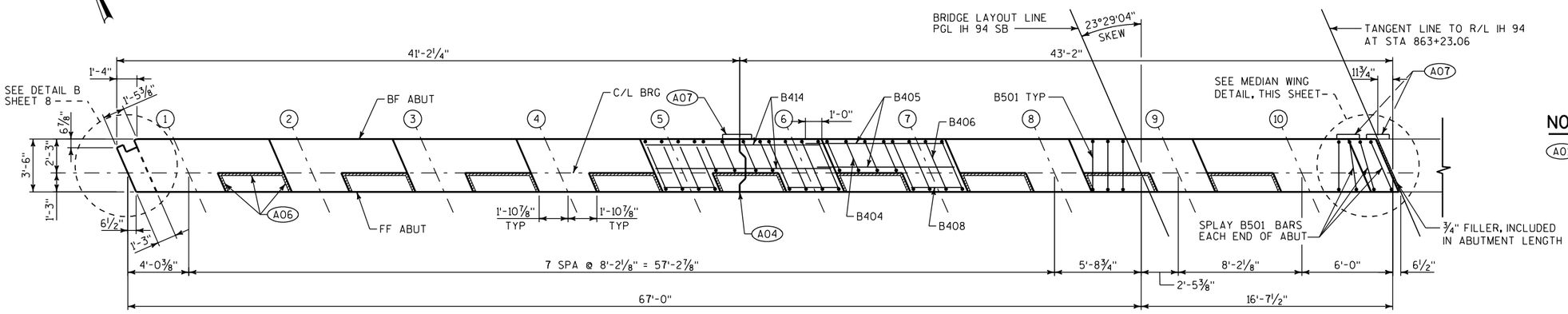
(LOOKING NORTH)

A - 3 SPA @ 1'-1" = 3'-3", ADD'T B406 SEAT REINF REQ'D @ GIRDERS 3 THRU 9

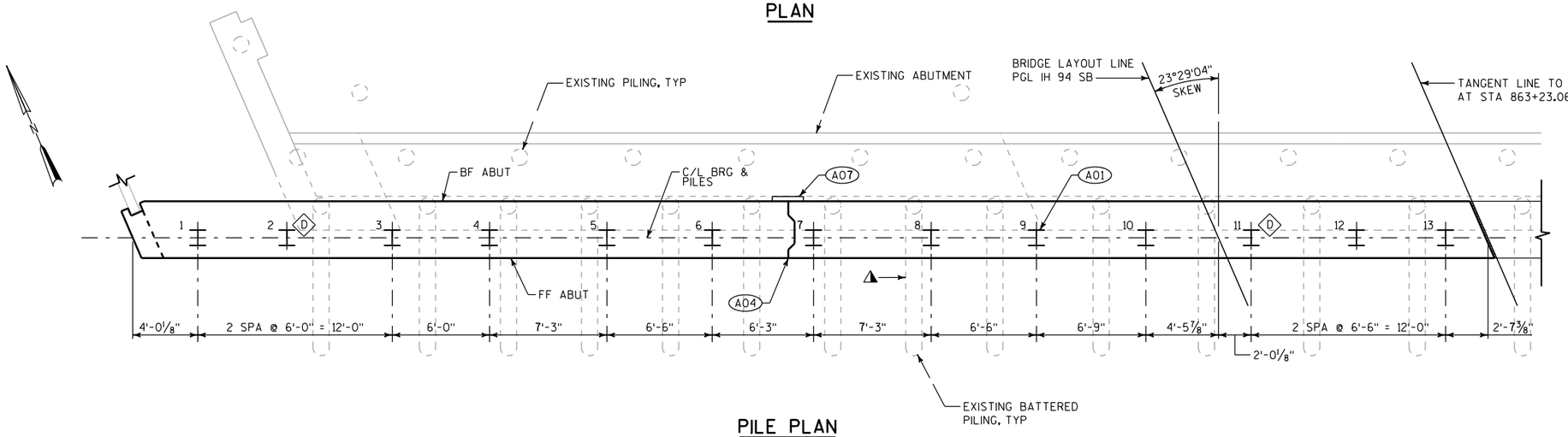
B - 3 SPA @ 1'-3" = 3'-9", B404 BETWEEN GIRDER SEATS REQ'D @ GIRDERS 3 THRU 9



MEDIAN WING DETAIL



PLAN



PILE PLAN

NOTES:

(A01) HP12X53 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 185 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD.
ESTIMATED PILE LENGTH = 90 FEET

NOTE - PROPOSED PILES MAY BE MOVED UP TO 8" ALONG C/L BRG & PILES TO AVOID CONFLICTS WITH EXISTING PILES. IF GREATER ADJUSTMENT IS NECESSARY, CONTACT THE ENGINEER FOR ADDITIONAL INSTRUCTIONS BEFORE PROCEEDING.

LOCATION OF EXISTING PILES IS SHOWN BASED ON AS-BUILT INFORMATION ONLY. FIELD VERIFY PILE LOCATIONS IMMEDIATELY AFTER EXPOSURE AND NOTIFY THE ENGINEER OF ANY DEVIATIONS NOTED.

◇D DYNAMIC PILE LOAD TESTING.

(A04) KEYED CONST JOINT FORMED BY BEVELED 2" x 8".

(A06) ¾" CORK FILLER UP VERT BEAM SEAT FACES, TYP.

(A07) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

▲ CUT OFF PILING IN EXISTING FOOTING THAT IS IN THE FOOTPRINT OF THE PROPOSED MSE WALL 1'-0" BELOW BOTTOM OF PROPOSED MSE WALL LEVELING PAD. DO NOT INCORPORATE EXISTING PILING INTO PROPOSED ABUTMENT.

◐ CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" KEYWAY WITH MEMBRANE ON BACKFACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

DRAWN BY GLM | PLANS CK'D. KES

NORTH ABUTMENT

SHEET 7 OF 23

500

8

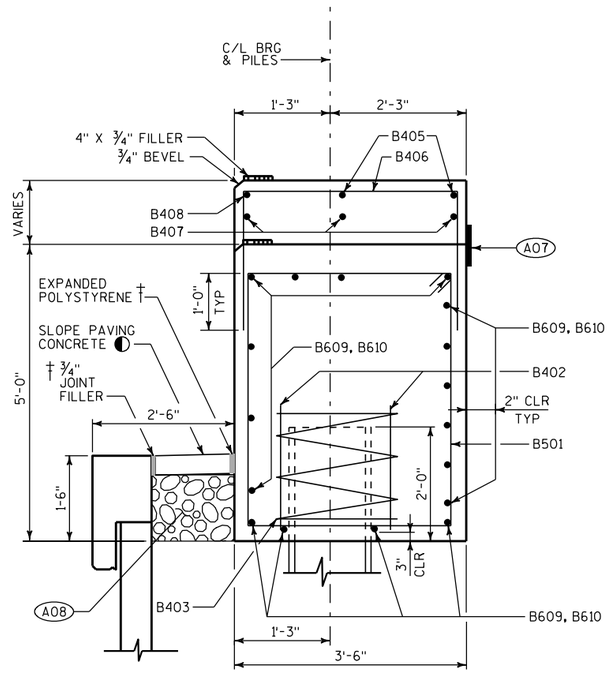
8

STATE PROJECT NUMBER
1033-02-72

LEGEND

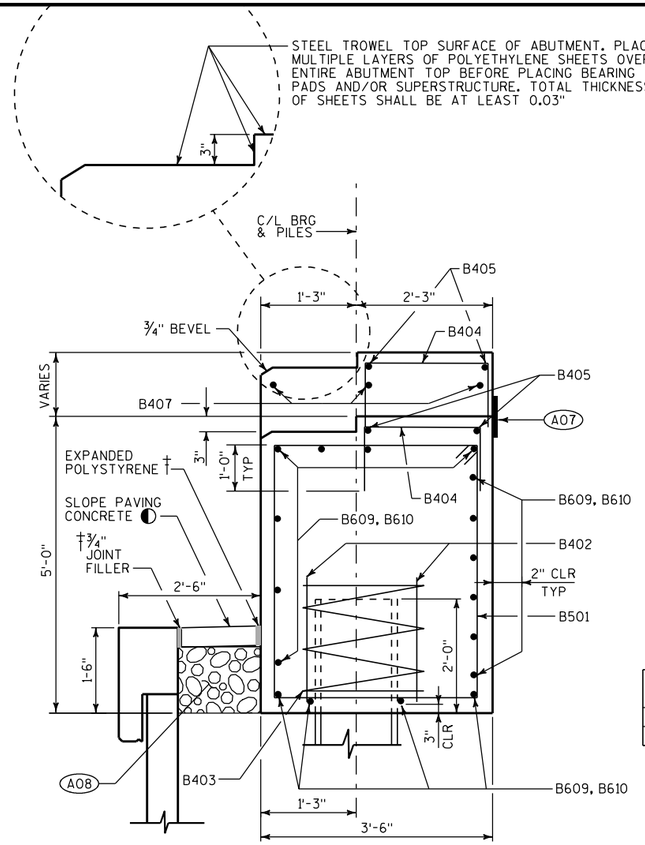
† SEAL ALL EXPOSED HORIZ & VERT SURFACES OF FILLER WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.

◐ SLOPE CONCRETE PAD DOWN 3/4" FROM FRONT FACE OF ABUTMENT TO BACK OF CONCRETE COPING



SECTION THRU BODY

(AT GIRDER SEATS)

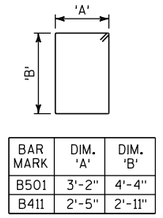


SECTION THRU BODY

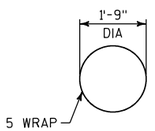
(BETWEEN GIRDER SEATS)

BILL OF BARS

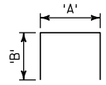
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B501	E	104	15'-6"	X		ABUT BODY STIRRUPS
B402	E	26	2'-3"			ABUT PILES - 2 PER PILE
B403	E	13	28'-0"	X		ABUT PILES - 1 PER PILE
B404	E	36	4'-5"	X		ABUT BODY TOP - BETWEEN BEAM SEATS
B405	E	16	9'-2"			ABUT BODY TOP - HORIZ BETWEEN BEAM SEATS
B406	E	28	7'-7"	X		ABUT BODY TOP - UNDER GIRDERS 3 - 9
B407	E	6	27'-2"			ABUT BODY TOP - HORIZ UNDER GIRDERS 3 - 9
B408	E	7	3'-6"			ABUT BODY TOP - HORIZ UNDER GIRDERS 3 - 9
B609	E	17	60'-0"			ABUT BODY - HORIZ
B610	E	17	27'-2"			ABUT BODY - HORIZ
B411	E	2	11'-2"	X		ABUT BODY END STIRRUPS
B512	E	3	16'-4"	X		MEDIAN WING - VERTICAL TIE
B413	E	9	1'-6"			MEDIAN WING - HORIZONTAL
B414	E	2	11'-7"			ABUT BODY TOP - BETWEEN GIRDERS 5 & 6
B415	E	4	7'-3"	X		ABUT BODY - HORIZ ENDS
B416	E	4	8'-9"	X		ABUT BODY END - HORIZ TIE
B417	E	7	2'-5"	X		ABUT BODY END - HORIZ TIE
B418	E	1	2'-11"	X		ABUT BODY END - VERT



BAR MARK	DIM. 'A'	DIM. 'B'
B501	3'-2"	4'-4"
B411	2'-5"	2'-11"

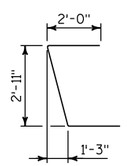


B403

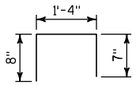


BAR MARK	DIM. 'A'	DIM. 'B'
B404	2'-1"	1'-3"
B406	3'-5"	2'-2"
B512	3'-5"	6'-7"

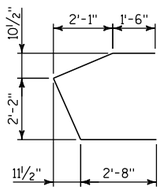
B404, B406, B512



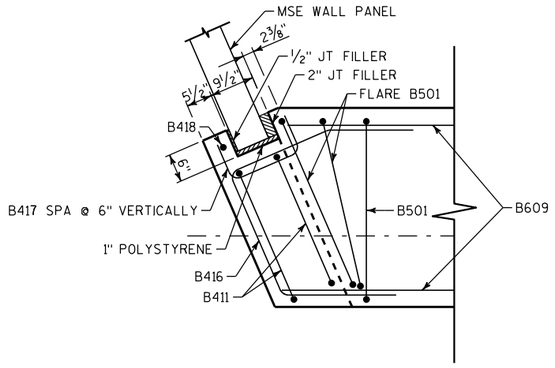
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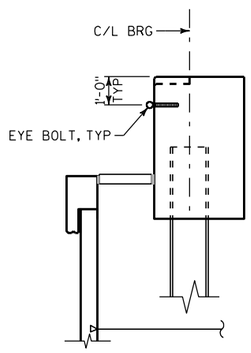
B417



B416

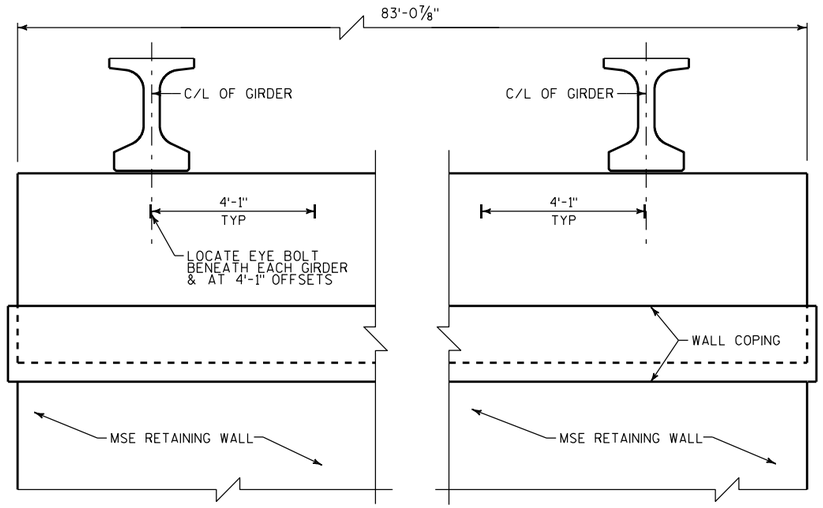


DETAIL B



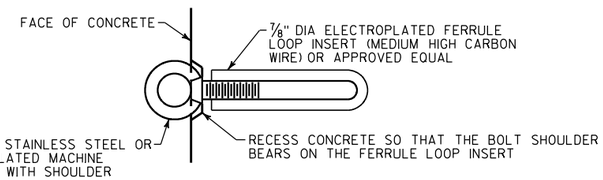
SECTION THRU ABUT

(SHOWING FALL PROTECTION - LOOKING WEST)



ABUTMENT ELEVATION

(SHOWING FALL PROTECTION - LOOKING NORTH)



EYE BOLT DETAIL

EYE BOLTS AND FERRULE LOOP INSERTS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES". MINIMUM STRENGTH OF EYE BOLT AND LOOP INSERT IS 3500 LB.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

DRAWN BY GLM | PLANS CK'D. KES

NORTH ABUTMENT DETAILS

SHEET 8 OF 23

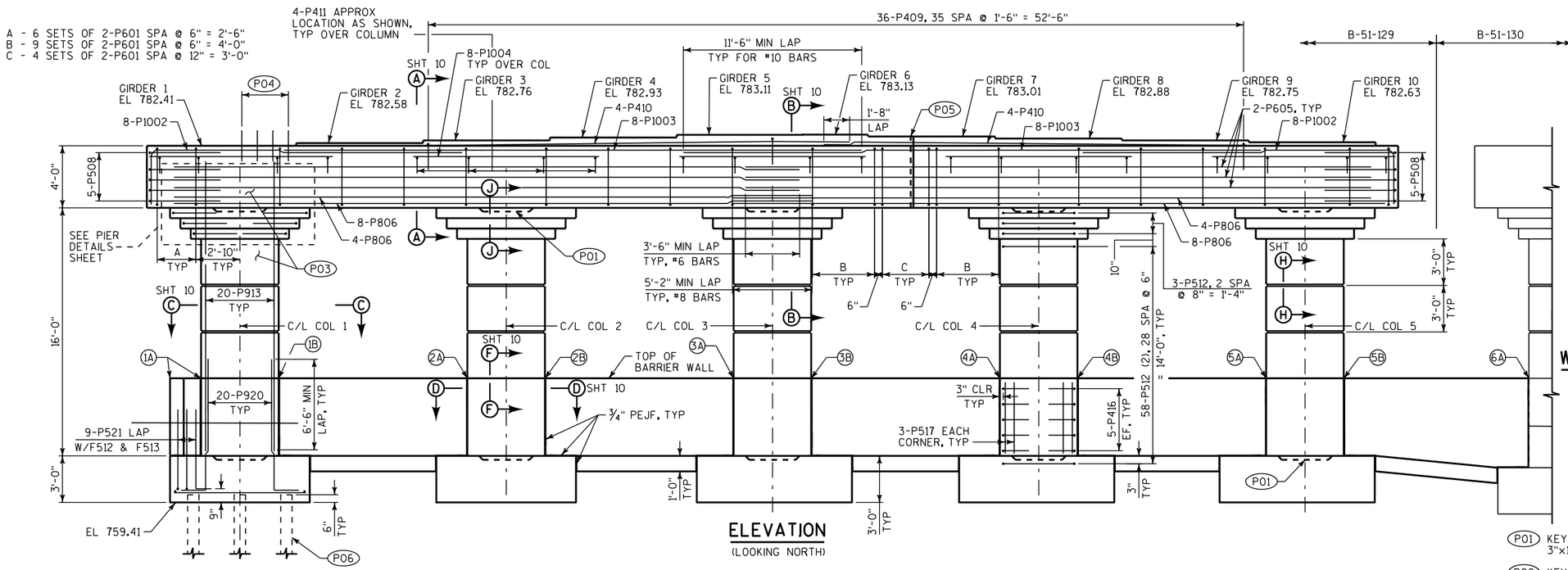
501

8

8

STATE PROJECT NUMBER
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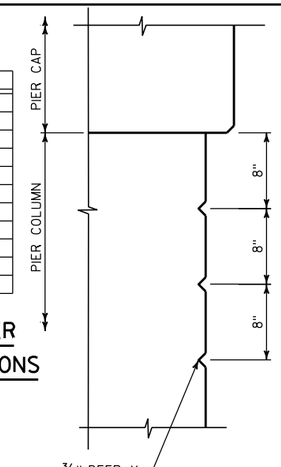
A - 6 SETS OF 2-P601 SPA @ 6" = 2'-6"
B - 9 SETS OF 2-P601 SPA @ 6" = 4'-0"
C - 4 SETS OF 2-P601 SPA @ 12" = 3'-0"



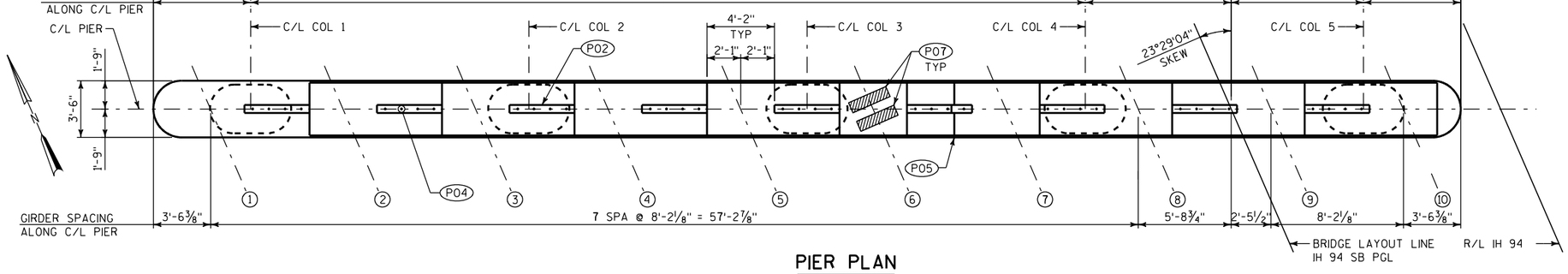
ELEVATION
(LOOKING NORTH)

POINT	ELEVATION
1A	767.33
1B	767.28
2A	767.18
2B	767.14
3A	767.03
3B	766.98
4A	766.87
4B	766.83
5A	766.73
5B	766.69
6A	766.58

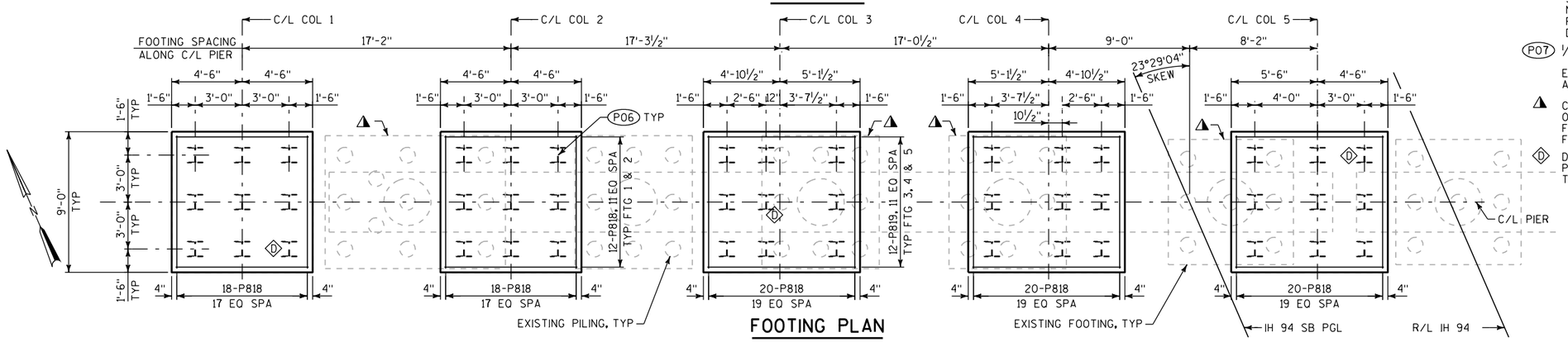
PIER BARRIER WALL ELEVATIONS



SECTION J-J
(FOR FILLET DIMENSIONS, SEE SECTION F-F ON SHT 10)



PIER PLAN



FOOTING PLAN

NOTES

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 3"x1'-2"x3'-6", TYPICAL TOP AND BOTTOM OF ALL COLUMNS.

(P02) KEYED CONSTRUCTION JOINT FORMED BY A SURFACED BEVELED 2"x6" BETWEEN BEAM SEATS.

(P03) FOR CONCRETE STAINING DETAILS, SEE SHEET 21.

(P04) P507 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE)

(P05) VERT. CONST. JOINT FORMED BY SURFACED BEVELED 2" x 6" x 2'-0" KEYWAY

(P06) HP12X53 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 160 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD. ESTIMATED PILE LENGTH = 65 FEET.

NOTE - PROPOSED PILES MAY BE MOVED UP TO 6" EACH WAY TO AVOID CONFLICTS WITH EXISTING PILES. IF 6" ADJUSTMENT IS NOT SUFFICIENT, EXISTING PILES MAY BE EXTRACTED AND THE HOLE THEN FILLED WITH SAND. REMOVAL OF EXISTING PILES AND PLACEMENT OF SAND IS INCLUDED IN THE PAY ITEM "REMOVING OLD STRUCTURE STA 862+44.2".

LOATION OF EXISTING FOOTINGS IS SHOWN BASED ON AS-BUILT INFORMATION ONLY. THE PILE LOCATIONS AND THE NUMBER OF PILES PER FOOTING IS UNKNOWN AND SHOULD BE FIELD VERIFIED IMMEDIATELY AFTER EXPOSURE. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE ASSUMED PILE LAYOUT. THE PILE LAYOUT SHOWN IS BASED ON SIMILAR DESIGNS FROM THAT ERA OF CONSTRUCTION.

(P07) 1/2" THICK ELASTOMERIC BEARING PAD. SEE SHEET 18 FOR DETAILS.

ELEVATIONS ARE GIVEN AT THE TOP OF THE CONCRETE AT THE INTERSECTION OF THE C/L GIRDER AND C/L PIER.

▲ CUT OFF PILING IN EXISTING FOOTING THAT IS IN THE FOOTPRINT OF THE PROPOSED FOOTING 6" BELOW BOTTOM OF PROPOSED FOOTING. DO NOT INCORPORATE EXISTING PILING INTO PROPOSED FOOTING.

◇D DYNAMIC PILE LOAD TESTING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

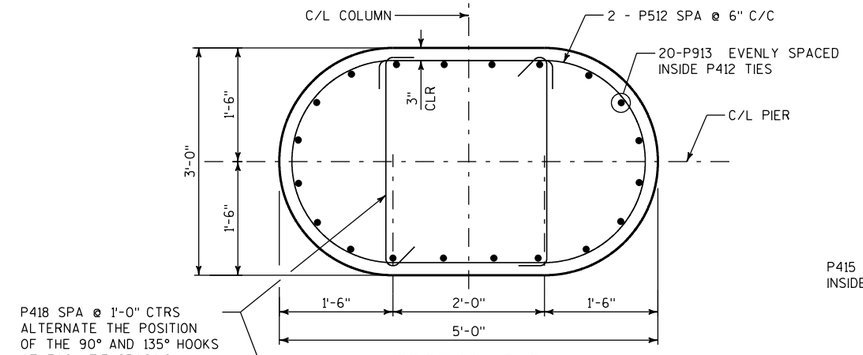
DRAWN BY	GLM	PLANS CK'D.	KES

PIER

SHEET 9 OF 23

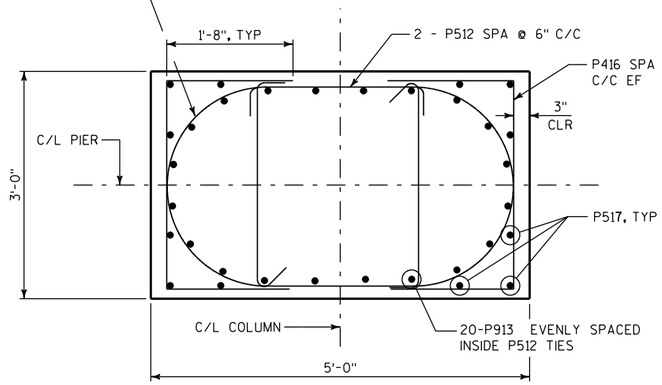
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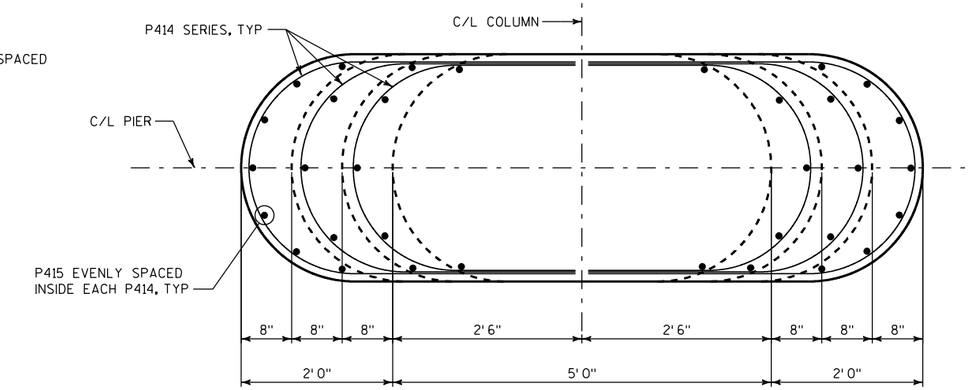
SECTION C-C

TYPICAL COLUMN SECTION ABOVE TOP OF FILLER WALL



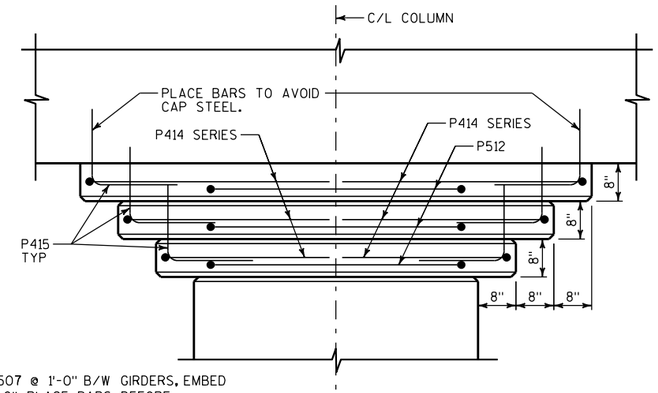
SECTION D-D

TYPICAL COLUMN SECTION BELOW TOP OF FILLER WALL



SECTION THRU COLUMN

COLUMN DETAILS AT CAPITALS
COLUMN STEEL NOT SHOWN FOR CLARITY

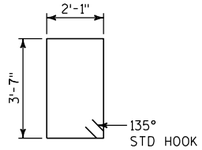


CAPITAL DETAIL

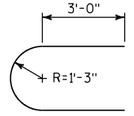
BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
P601	E	200	12'-2"	X		PIER CAP STIRRUPS
P1002	E	16	23'-1"	X		PIER CAP TOP
P1003	E	16	37'-7"			PIER CAP TOP
P1004	E	40	12'-0"			PIER CAP TOP ABOVE COLUMNS
P605	E	12	40'-4"			PIER CAP SIDES
P806	E	24	41'-2"			PIER CAP BOTTOM
P507	E	36	2'-0"			DIAPHRAGM DOWELS
P508	E	10	9'-11"	X		PIER CAP ENDS
P409	E	25	6'-2"	X		CAP BEAM SEAT
P410	E	8	27'-4"			CAP BEAM SEAT
P411	E	20	4'-4"	X		PIER CAP ABOVE COLUMNS
P512	E	305	15'-3"	X		COLUMN STIRRUPS
P913	E	100	18'-10"			COLUMN - VERTICAL
P414	E	30	8'-7"	X	⚠	COLUMN CAPITAL - HORIZONTAL
P415	E	170	2'-11"	X		COLUMN CAPITAL - VERTICAL
P416	E	50	5'-8"	X		COLUMN BOTTOM
P517	E	60	4'-0"			COLUMN BOTTOM
P818		120	8'-6"			FOOTING - HORIZONTAL
P819		36	9'-6"			FOOTING - HORIZONTAL
P920	E	100	10'-3"	X		FOOTING
P521	E	9	6'-1"	X		OUTSIDE COLUMN FOOTING
P422	E	150	3'-2"	X		COLUMN - HORIZONTAL TIE

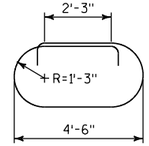
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



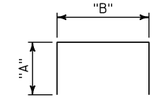
P601



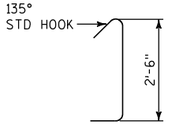
P508



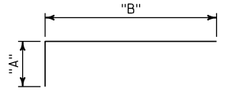
P512



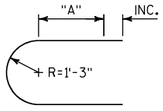
MARK	"A"	"B"
P416	1'-8"	2'-6"
P409	1'-9"	2'-10"
P411	8"	3'-2"



P422



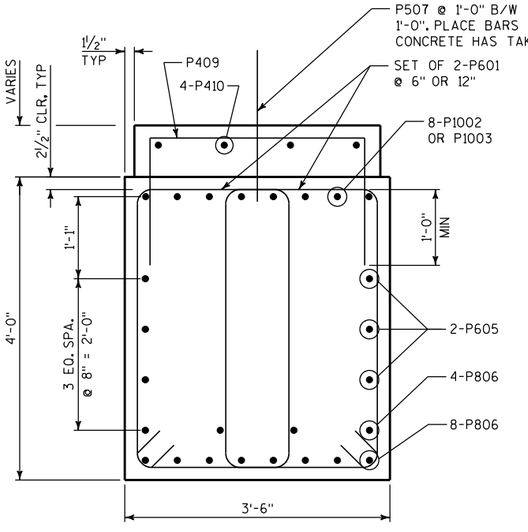
MARK	"A"	"B"
P1002	3'-7"	19'-10"
P415	1'-6"	1'-6"
P521	10"	5'-4"
P920	1'-7"	8'-11"



P414

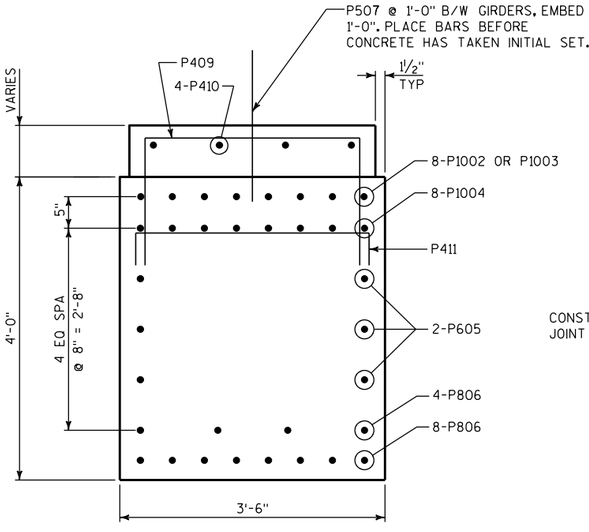
BAR MARK	NO. REQ'D	"A"	INC.	LENGTH
P414	10 SERIES OF 3	1'-8" TO 3'-0"	8"	7'-3" TO 9'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY



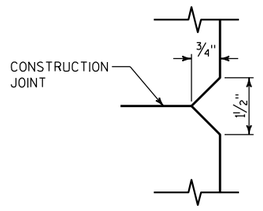
SECTION A-A

PIER CAP SECTION MIDDLE SPAN B/W COLUMNS

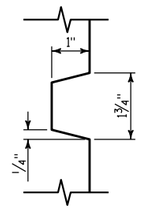


SECTION B-B

PIER CAP SECTION OVER COLUMN



SECTION F-F



SECTION H-H

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

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PIER DETAILS

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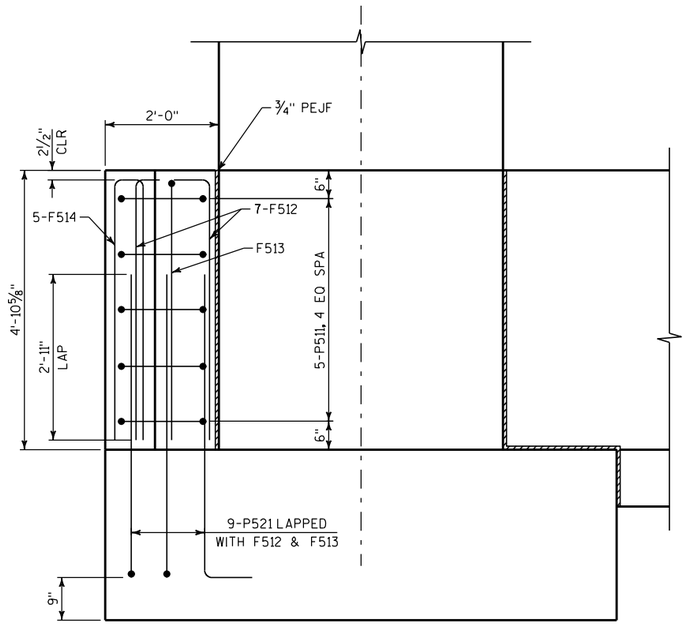
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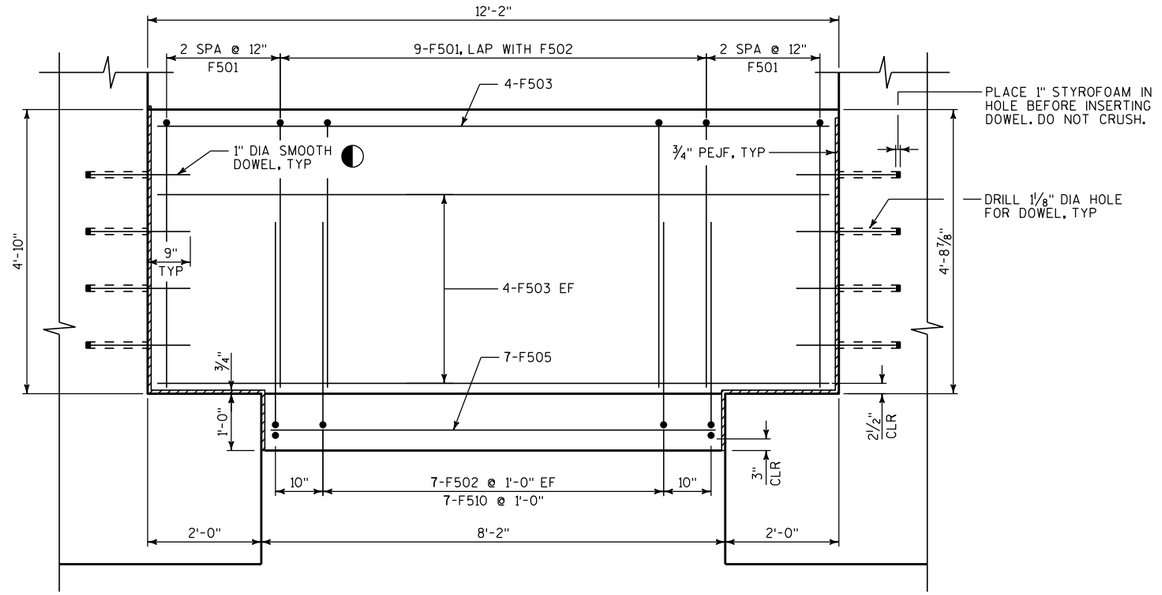
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ELEVATION OF BARRIER WALL AT END OF PIER

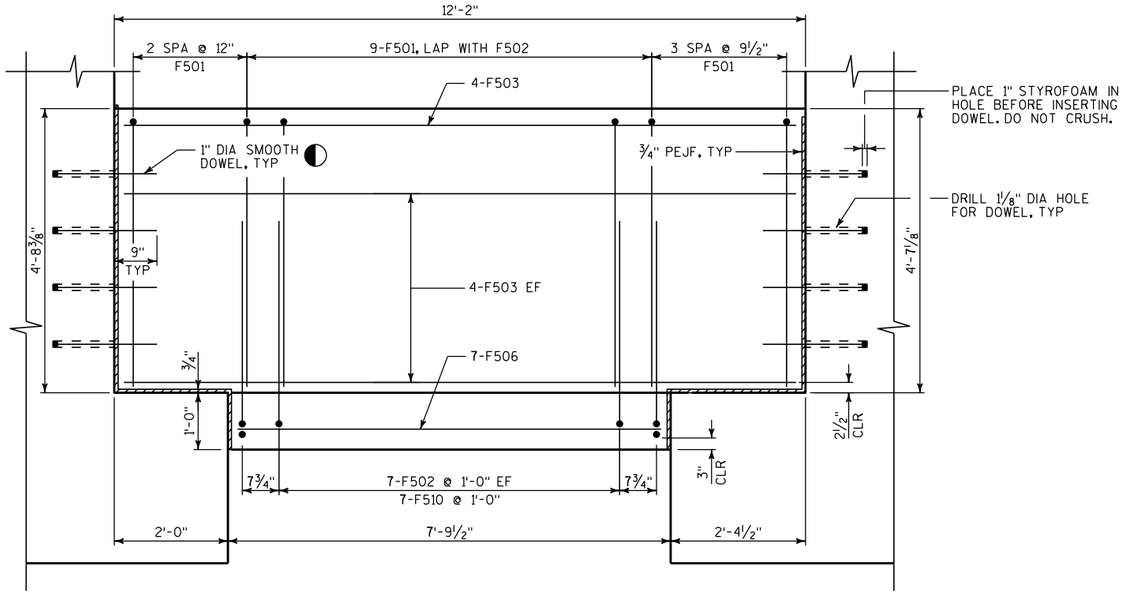


ELEVATION OF BARRIER WALL

B/W FTG 1 & FTG 2

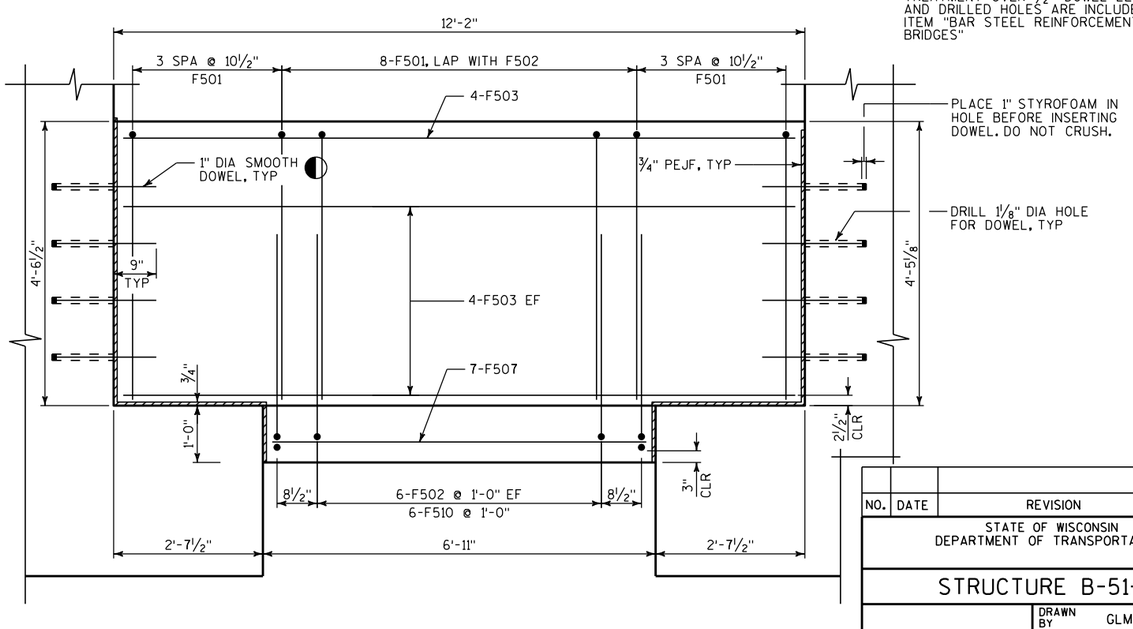
LEGEND

◐ 1" DIA SMOOTH EPOXY COATED DOWELS. DOWELS SHALL BE COATED WITH A DEBONDING SURFACE TREATMENT OVER ½ DOWEL LENGTH. DOWELS AND DRILLED HOLES ARE INCLUDED IN THE BID ITEM "BAR STEEL REINFORCEMENT HS COATED BRIDGES"



ELEVATION OF BARRIER WALL

B/W FTG 2 & FTG 3



ELEVATION OF BARRIER WALL

B/W FTG 3 & FTG 4

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

DRAWN BY GLM | PLANS CK'D. KES

PIER BARRIER WALL DETAILS 1

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504

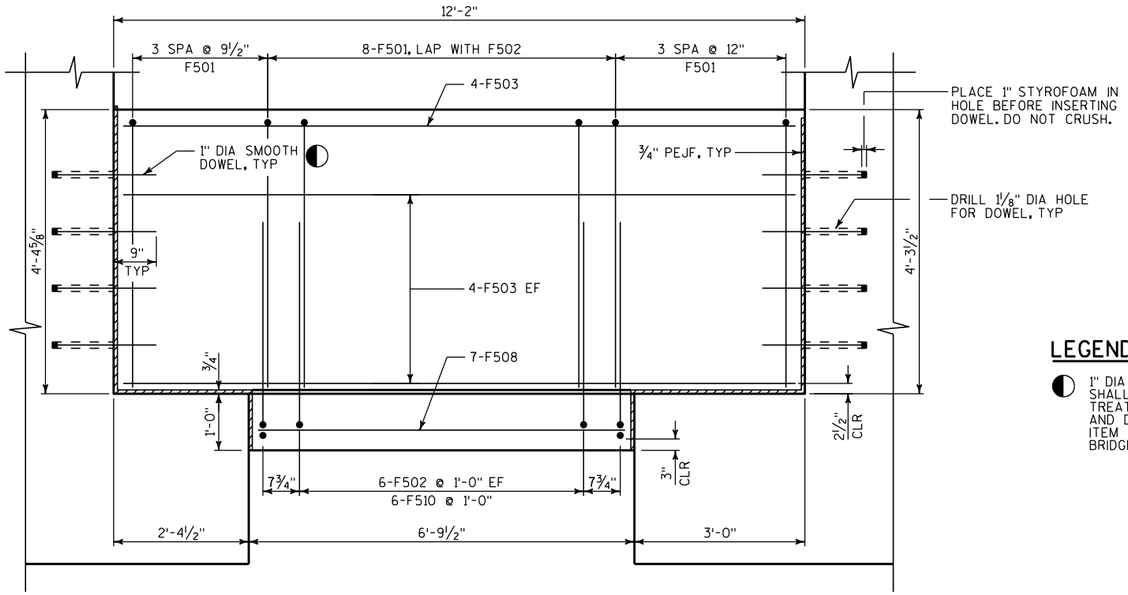
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PLOT DATE : 08-NOV-2013 14:18 PLOT BY : MSCKES PLOT NAME : B51129_080403_pi PLOT SCALE : 2.666667:1

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ELEVATION OF TYPICAL BARRIER WALL

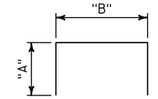
B/W FTG 4 & FTG 5

LEGEND

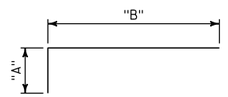
◐ 1" DIA SMOOTH EPOXY COATED DOWELS. DOWELS SHALL BE COATED WITH A DEBONDING SURFACE TREATMENT OVER ½ DOWEL LENGTH. DOWELS AND DRILLED HOLES ARE INCLUDED IN THE BID ITEM "BAR STEEL REINFORCEMENT HS COATED BRIDGES"

BILL OF BARS

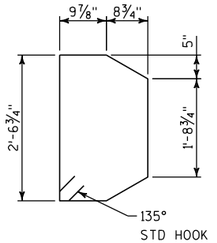
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
F501	E	69	10'-6"	X		BARRIER WALL - VERTICAL TIE
F502	E	43	5'-0"	X		BARRIER WALL - VERTICAL
F503	E	48	11'-8"			BARRIER WALL - HORIZONTAL
F504	E	12	11'-6"			BARRIER WALL - HORIZONTAL
F505		7	7'-2"			BARRIER WALL - FOOTING
F506		7	7'-2"			BARRIER WALL - FOOTING
F507		7	6'-3"			BARRIER WALL - FOOTING
F508		7	6'-2"			BARRIER WALL - FOOTING
F509		7	7'-4"			BARRIER WALL - FOOTING
F510		43	5'-6"			BARRIER WALL - FOOTING
F511	E	5	8'-2"	X		BARRIER WALL - HORIZONTAL STIRRUP
F512	E	7	5'-3"	X		BARRIER WALL - VERTICAL
F513	E	1	11'-6"	X		BARRIER WALL - VERTICAL TIE
F514	E	5	9'-4"	X		BARRIER WALL - VERTICAL TIE



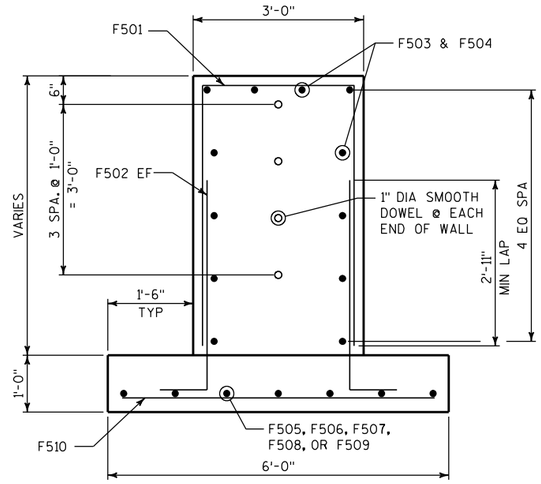
MARK	"A"	"B"
F501	4'-0"	2'-8"
F513	4'-5"	2'-8"
F514	4'-5"	6"



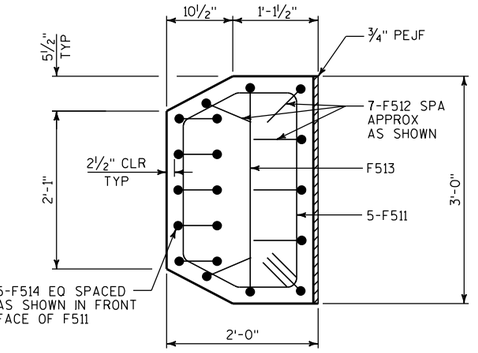
MARK	"A"	"B"
F502	9"	4'-6"
F512	9"	4'-5"



F511

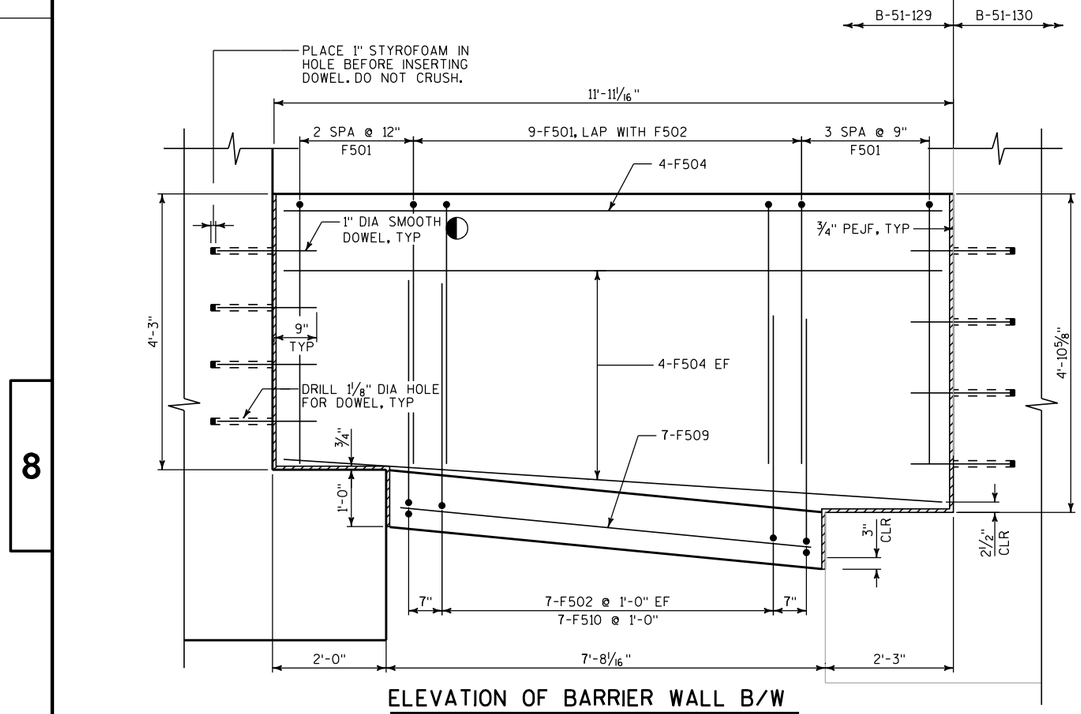


SECTION OF BARRIER WALL



PLAN OF BARRIER WALL

AT END OF PIER



ELEVATION OF BARRIER WALL B/W

BRIDGE B-51-129 FTG 5 & BRIDGE B-51-130 FTG 1

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

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PIER BARRIER WALL DETAILS 2

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505

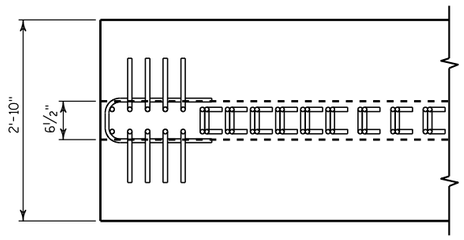
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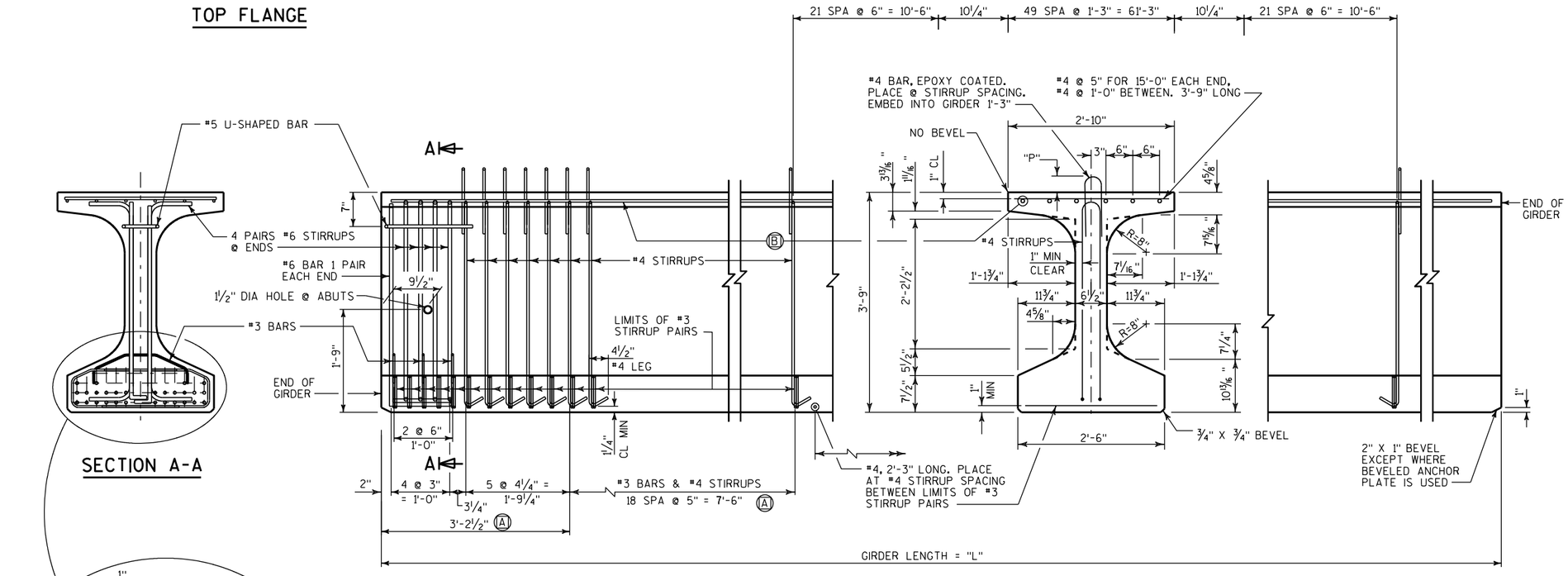
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TOP FLANGE

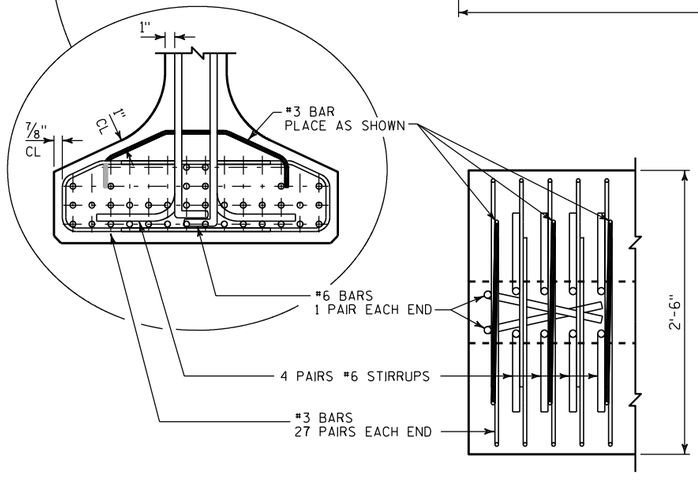


SECTION A-A

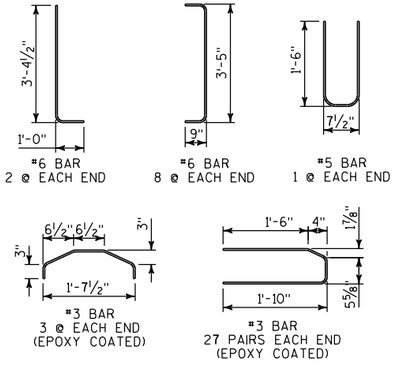
SIDE VIEW & TYP SECTION IN SPAN

(A) DETAIL TYP AT EACH END

(B) 6 #4 BARS, FULL LENGTH, MIN LAP = 1'-8"



BOTTOM FLANGE



GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY FOR BONDING TO THE SLAB, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

PRESTRESSING STRANDS SHALL BE 0.6" DIA - 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI AND SHALL BE FLUSH WITH THE ENDS OF THE GIRDER.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS, SEE "STEEL DIAPHRAGM" SHEET.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, THE FOLLOWING OPTION IS AVAILABLE:

1. USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A497.

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	CONC. STRGTH. f'c (P.S.I.)	"P"	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
1	105'-4½"	⅞"	1⅜"	1⅞"	2⅛"	2¼"	8000	8"	0.6	36	6800	39	13½	16½	5
2	105'-4½"	⅞"	1⅜"	1⅞"	2⅛"	2¼"	8000	8"	0.6	36	6800	39	13½	16½	5

SEE 45W" PRESTRESSED GIRDER DETAILS SHEET FOR DRAPED STRAND PROFILE AND DEAD LOAD DEFLECTION DIAGRAM.

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STRUCTURE B-51-129

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45W" PRESTRESSED GIRDER

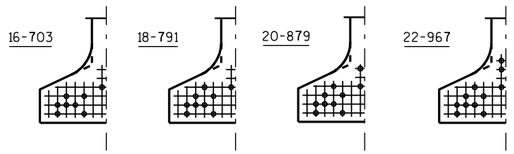
SHEET 13 OF 23

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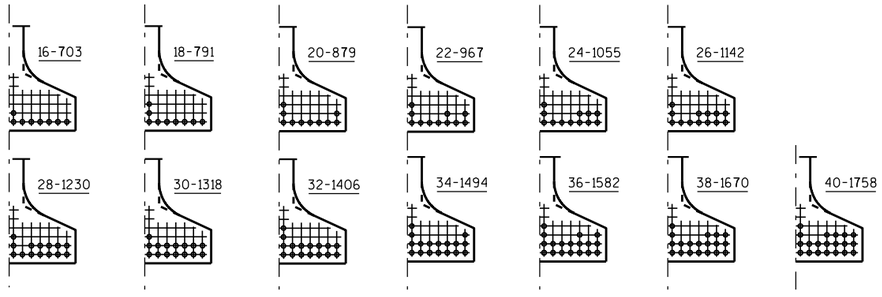
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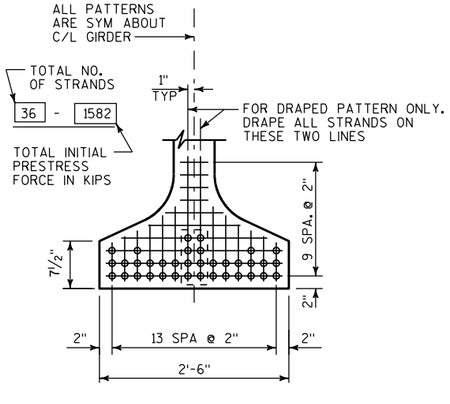
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6" DIA STRANDS



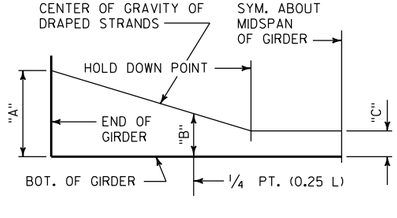
ARRANGEMENT AT C/L SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6" DIA STRANDS



TYPICAL STRAND PATTERN

0.6" DIA STRANDS



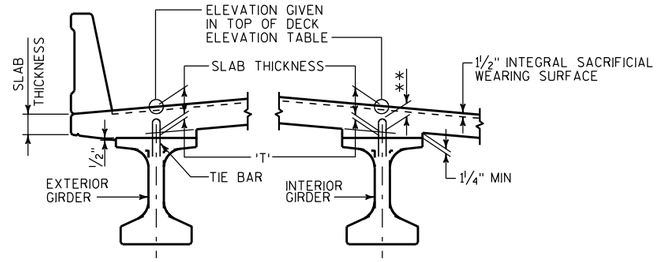
DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	3¼"
2	3¼"

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



SLAB HAUNCH DETAIL

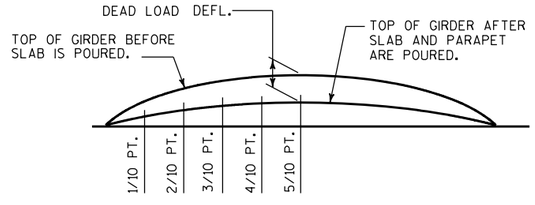
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEVATION OF TOP OF GIRDERS AT C/L OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEVATION AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- SLAB THICKNESS

= HAUNCH HEIGHT 'T'



DEAD LOAD DEFLECTION DIAGRAM

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

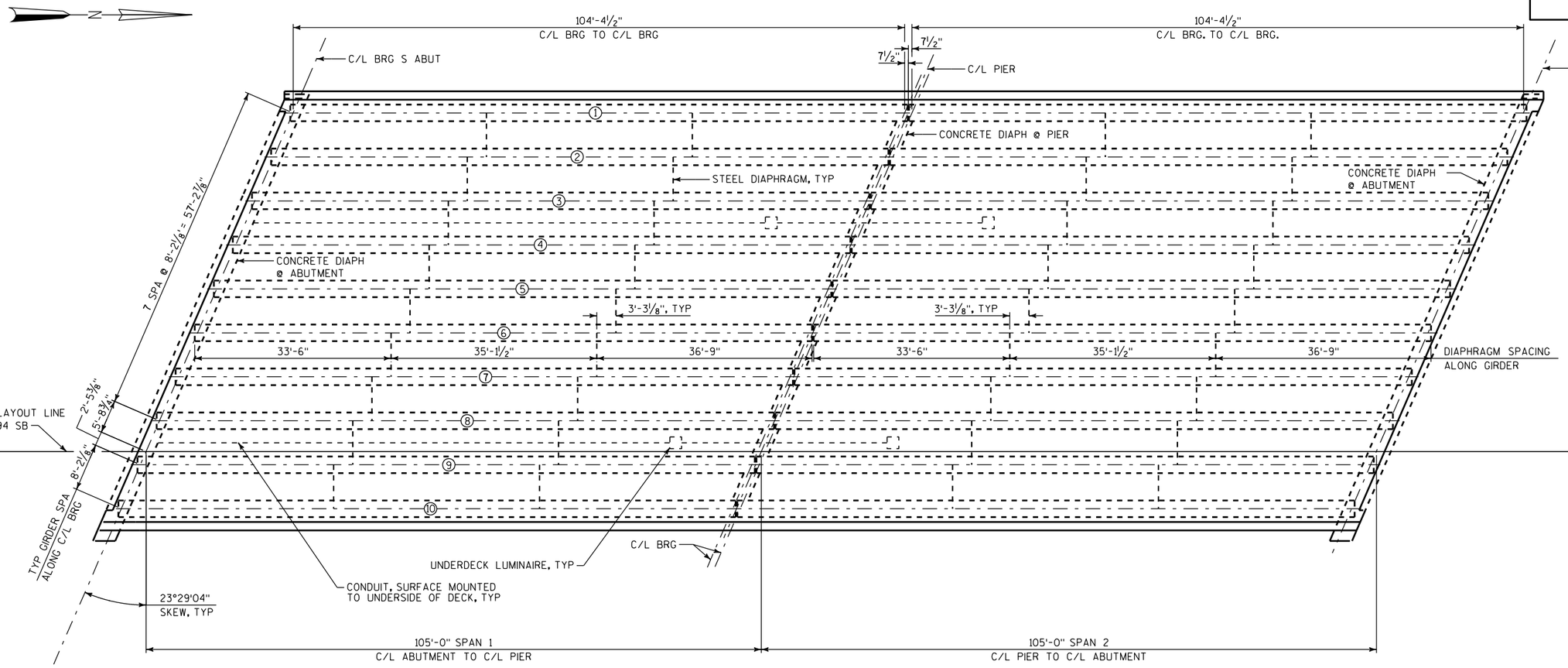
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45W" PRESTRESSED GIRDER DETAILS

SHEET 14 OF 23

507

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1033-02-72



FRAMING PLAN

NOTE

PROVIDE CAST IN THREADED INSERTS IN UNDERSIDE OF BRIDGE DECK FOR ATTACHMENT OF UNDERDECK LIGHTING LUMINAIRES AND CONDUITS. CONDUIT NOT EMBEDDED IN CONCRETE, JUNCTION BOXES, AND DECK INSERTS ARE INCLUDED IN THE BID ITEM "UNDERDECK LIGHTING SPECIAL (STH 20)". SEE LIGHTING PLANS AND SPECIAL PROVISIONS.

TOP OF DECK ELEVATIONS

	S. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	PIER	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	N. ABUT.
FLOW LINE	787.85	787.79	787.74	787.68	787.61	787.55	787.48	787.40	787.33	787.25	787.16	787.08	786.99	786.90	786.80	786.71	786.61	786.50	786.40	786.29	786.17
GIRDER 1	787.90	787.85	787.79	787.73	787.66	787.60	787.53	787.45	787.38	787.30	787.22	787.13	787.04	786.95	786.86	786.76	786.66	786.56	786.45	786.34	786.23
GIRDER 2	788.07	788.01	787.96	787.90	787.83	787.77	787.70	787.63	787.55	787.47	787.39	787.31	787.22	787.13	787.04	786.94	786.84	786.74	786.63	786.53	786.41
GIRDER 3	788.23	788.18	788.12	788.07	788.00	787.94	787.87	787.80	787.73	787.65	787.57	787.49	787.40	787.31	787.22	787.12	787.02	786.92	786.82	786.71	786.60
GIRDER 4	788.40	788.35	788.29	788.23	788.17	788.11	788.04	787.97	787.90	787.82	787.74	787.66	787.58	787.49	787.40	787.30	787.20	787.10	787.00	786.89	786.78
GIRDER 5	788.56	788.51	788.46	788.40	788.34	788.28	788.21	788.14	788.07	788.00	787.92	787.84	787.75	787.67	787.57	787.48	787.38	787.28	787.18	787.08	786.97
CROWN	788.65	788.60	788.54	788.49	788.43	788.36	788.30	788.23	788.16	788.08	788.01	787.92	787.84	787.75	787.66	787.57	787.47	787.38	787.27	787.17	787.06
GIRDER 6	788.58	788.53	788.48	788.42	788.36	788.30	788.23	788.17	788.09	788.02	787.94	787.86	787.78	787.69	787.60	787.51	787.41	787.32	787.21	787.11	787.00
GIRDER 7	788.44	788.39	788.34	788.29	788.23	788.17	788.10	788.04	787.97	787.89	787.82	787.74	787.66	787.57	787.48	787.39	787.29	787.20	787.10	786.99	786.89
GIRDER 8	788.31	788.26	788.21	788.15	788.10	788.04	787.97	787.91	787.84	787.77	787.69	787.61	787.53	787.45	787.36	787.27	787.17	787.08	786.98	786.88	786.77
GIRDER 9	788.17	788.12	788.07	788.02	787.97	787.91	787.84	787.78	787.71	787.64	787.57	787.49	787.41	787.32	787.24	787.15	787.05	786.96	786.86	786.76	786.65
GIRDER 10	788.04	787.99	787.94	787.89	787.83	787.78	787.71	787.65	787.58	787.51	787.44	787.36	787.28	787.20	787.11	787.03	786.93	786.84	786.74	786.64	786.54
FLOW LINE	787.99	787.95	787.90	787.85	787.79	787.74	787.67	787.61	787.54	787.47	787.40	787.32	787.24	787.16	787.08	786.99	786.90	786.80	786.70	786.60	786.50

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

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SUPERSTRUCTURE FRAMING PLAN

SHEET 15 OF 23

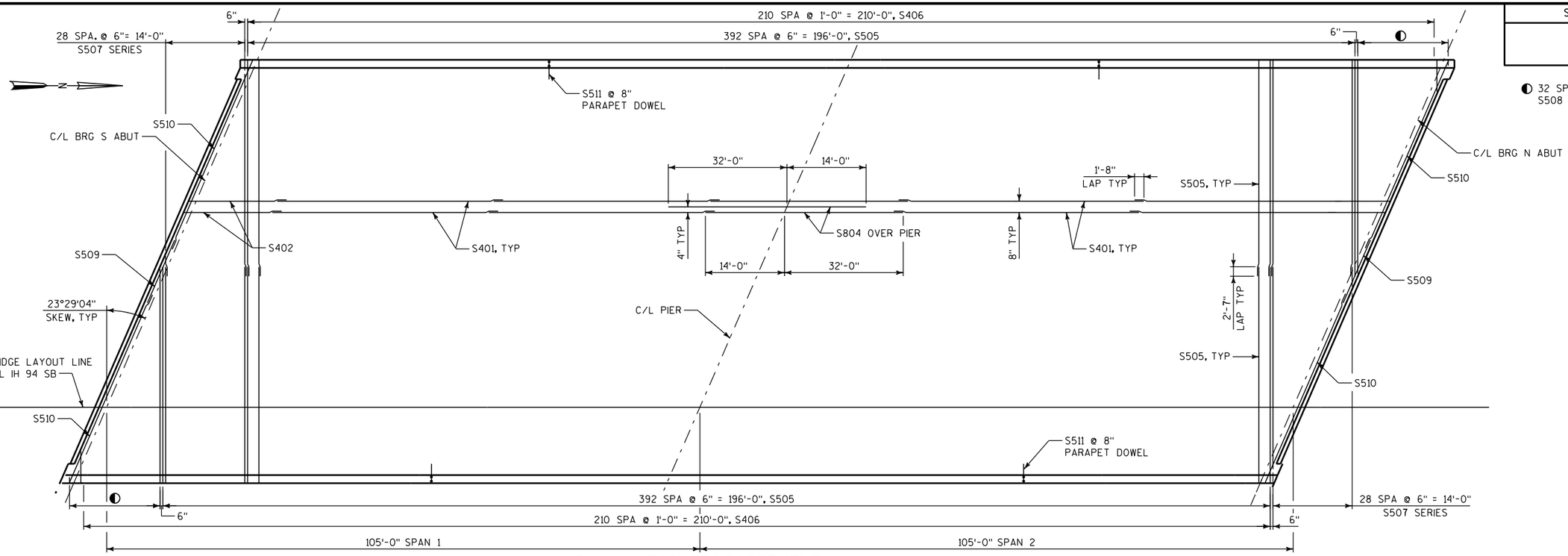
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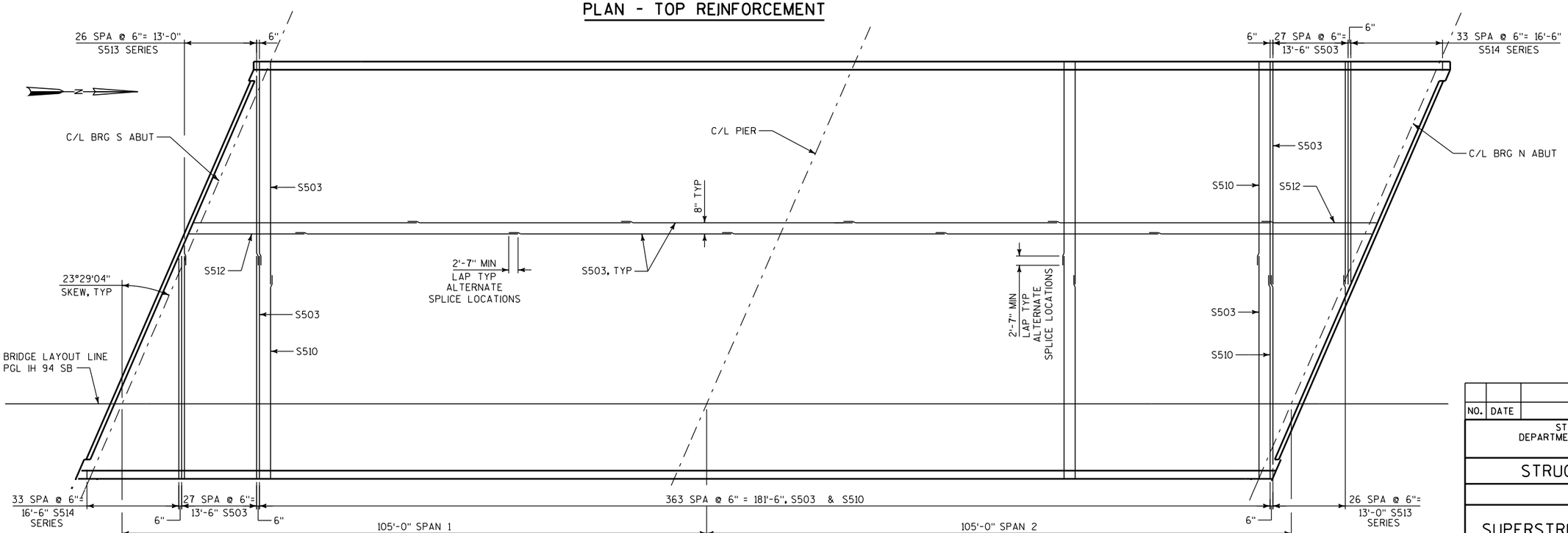
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◐ 32 SPA @ 6"= 16'-0"
S508 SERIES



PLAN - TOP REINFORCEMENT



PLAN - BOTTOM REINFORCEMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

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SUPERSTRUCTURE REINFORCEMENT

SHEET 16 OF 23

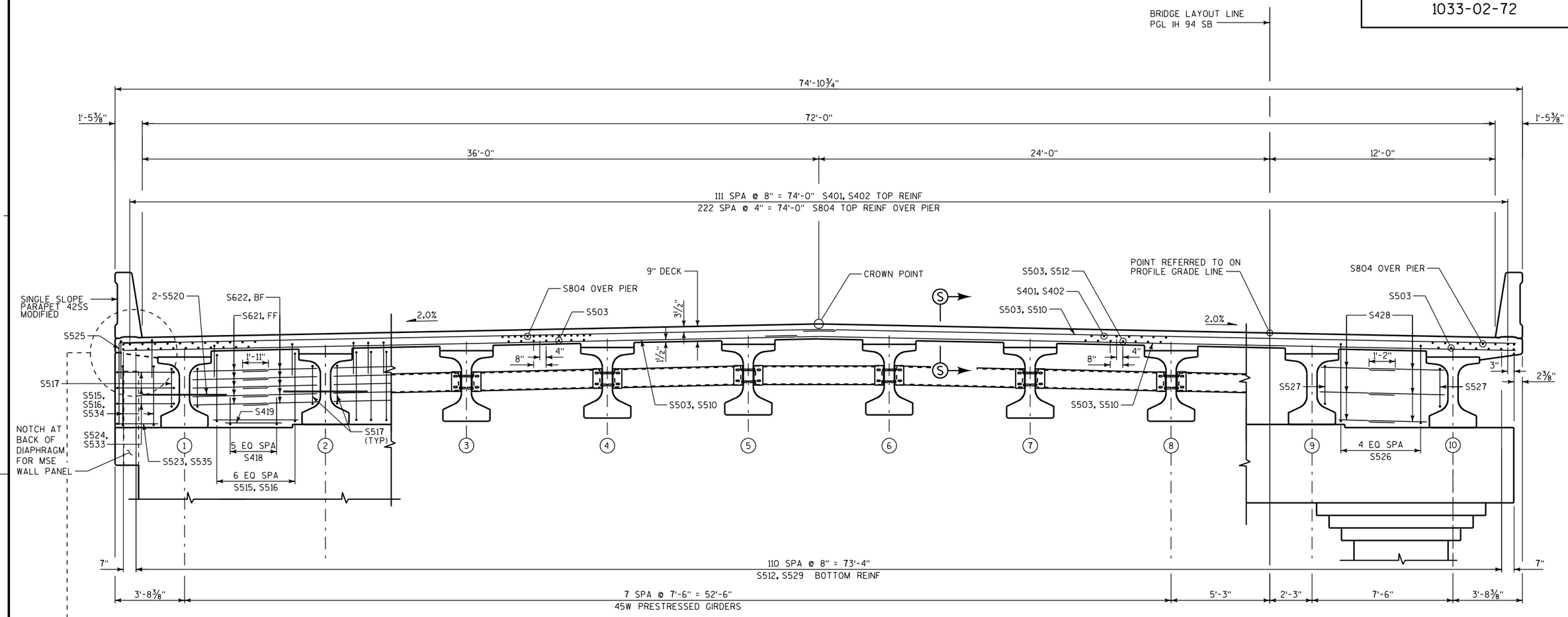
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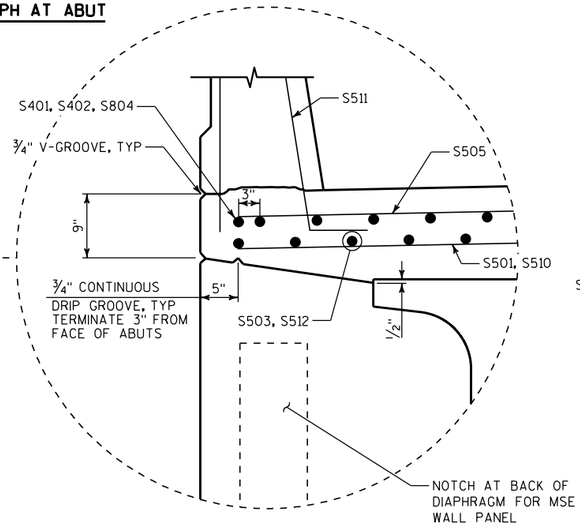
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STATE PROJECT NUMBER
1033-02-72



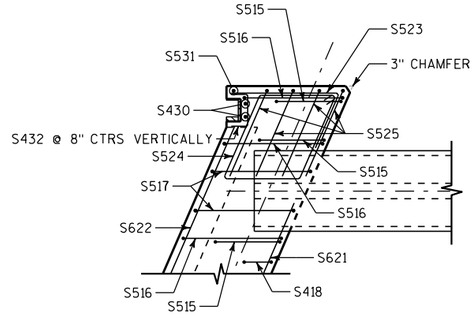
CONC DIAPH AT ABUT



IN SPAN DIAPH

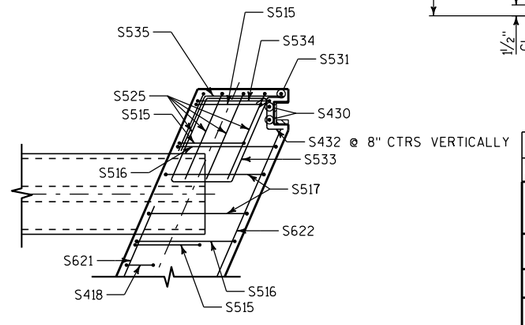
CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



ABUTMENT DIAPHRAGM

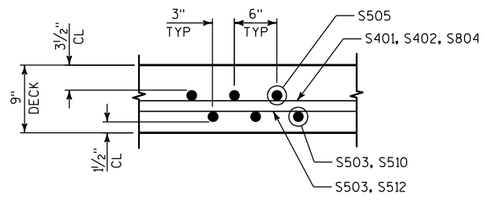
(SOUTHWEST END)



ABUTMENT DIAPHRAGM

(NORTHWEST END)

CONC DIAPH AT PIER



SECTION S-S

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

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SUPERSTRUCTURE CROSS SECTION

SHEET 17 OF 23

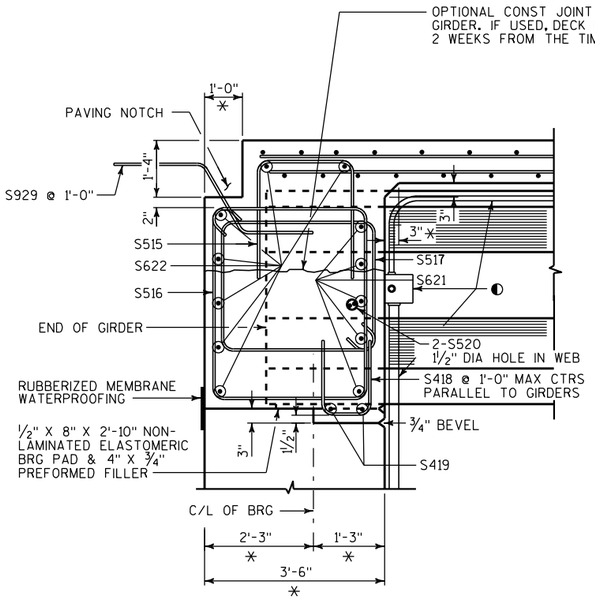
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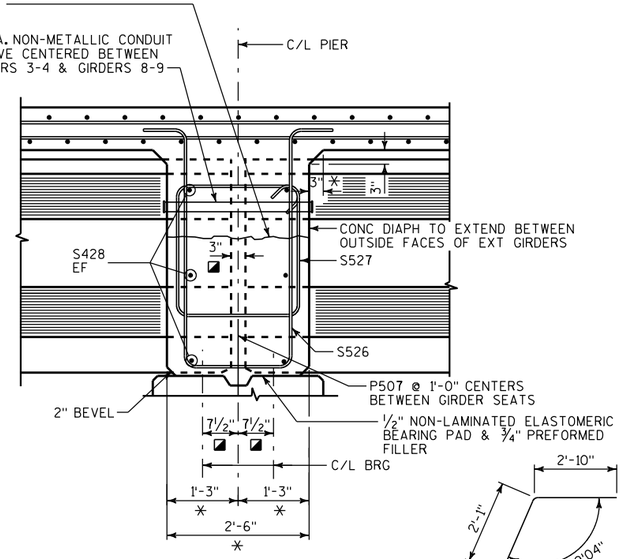
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STATE PROJECT NUMBER

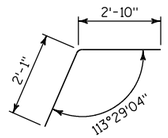
1033-02-72



AT ABUTMENT DIAPHRAGM



AT PIER DIAPHRAGM

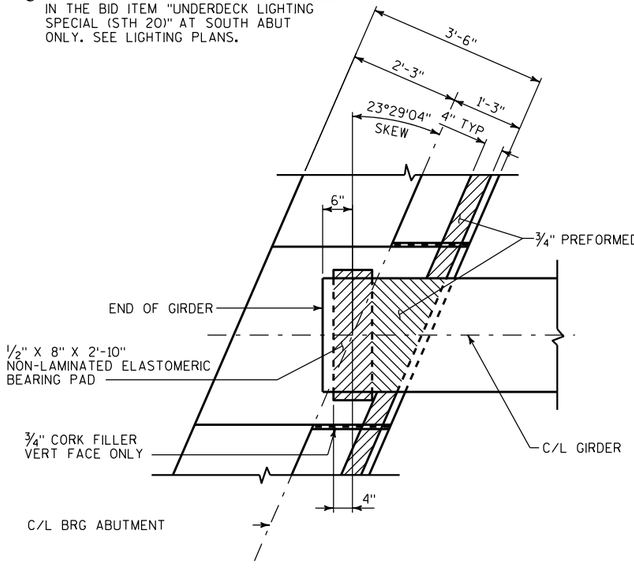


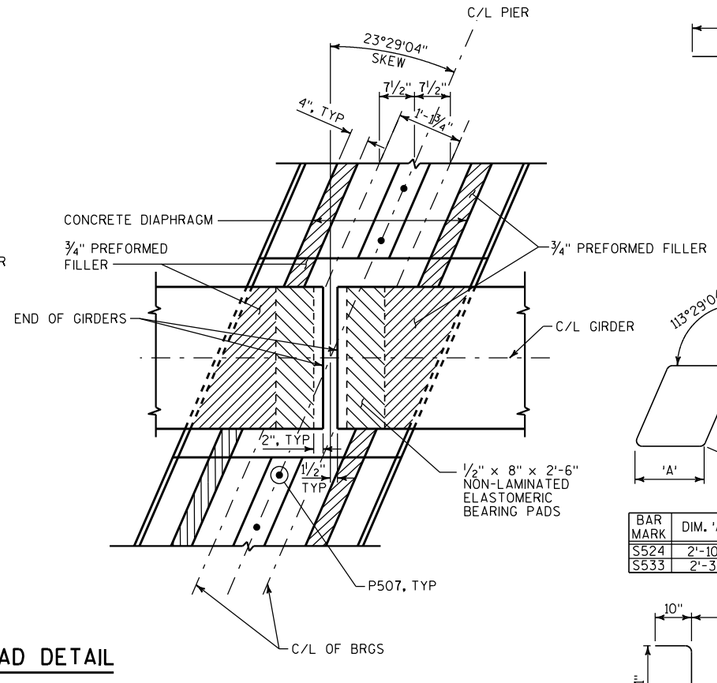
S535

LEGEND

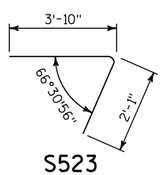
- ◪ DIMENSION PARALLEL TO GIRDER
- ✳ DIMENSION TAKEN NORMAL TO C/L SUBSTRUCTURE UNITS
- ◐ CONDUITS AND JUNCTION BOXES INCLUDED IN THE BID ITEM "UNDERDECK LIGHTING SPECIAL (STH 20)" AT SOUTH ABUT ONLY. SEE LIGHTING PLANS.

PART LONGIT SECTION

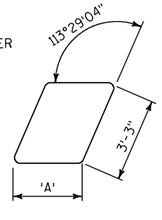




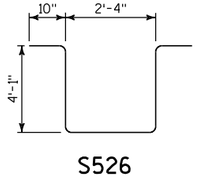
BEARING PAD DETAIL



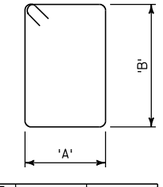
S523



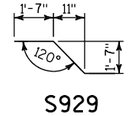
BAR MARK	DIM. 'A'
S524	2'-10"
S533	2'-3"



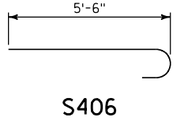
S526



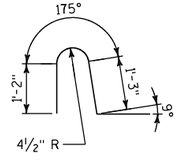
BAR MARK	DIM. 'A'	DIM. 'B'
S516	3'-5"	3'-1"
S517	3'-5"	1'-10"
S527	2'-4"	2'-2"
S534	2'-6"	3'-1"



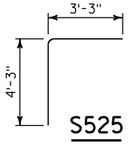
S929



S406



S511



S525

BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S401	E	456	40'-0"			SLAB LONGITUDINAL - TOP
S402	E	114	17'-4"			SLAB LONGITUDINAL & TRANSVERSE - BOTTOM
S503	E	985	40'-0"			SLAB LONGITUDINAL - TOP SOUTH END
S804	E	225	46'-0"			SLAB LONGITUDINAL - TOP OVER PIER
S505	E	786	38'-9"			SLAB TRANSVERSE - TOP
S406	E	422	6'-0"	X		SLAB TRANSVERSE - TOP OVERHANG
S507	E	58	20'-2"		▲	SLAB TRANSVERSE - TOP
S508	E	66	19'-2"		▲	SLAB TRANSVERSE - TOP
S509	E	2	11'-10"			SLAB TRANSVERSE - TOP ENDS
S510	E	368	36'-7"			SLAB TRANSVERSE - TOP ENDS & BOTTOM
S511	E	646	4'-5"	X		PARAPET DOWEL
S512	E	113	25'-8"			SLAB LONGITUDINAL - BOTTOM
S513	E	54	19'-7"		▲	SLAB TRANSVERSE - BOTTOM
S514	E	68	20'-8"		▲	SLAB TRANSVERSE - BOTTOM
S515	E	134	7'-1"	X		ABUTMENT DIAPHRAGM VERTICAL
S516	E	132	14'-0"	X		ABUTMENT DIAPHRAGM STIRRUP
S517	E	40	11'-2"	X		ABUTMENT DIAPHRAGM VERTICAL
S418	E	108	3'-4"	X		ABUTMENT DIAPHRAGM VERTICAL
S419	E	36	4'-0"			ABUTMENT DIAPHRAGM HORIZONTAL
S520	E	40	6'-0"			ABUTMENT DIAPHRAGM HORIZONTAL @ GIRDERS
S621	E	180	4'-7"			ABUTMENT DIAPHRAGM HORIZONTAL FF
S622	E	28	41'-1"	X		ABUTMENT DIAPHRAGM HORIZONTAL BF
S523	E	1	5'-9"	X		ABUTMENT DIAPHRAGM HORIZONTAL SOUTHWEST END
S524	E	3	12'-9"	X		ABUTMENT DIAPHRAGM HORIZONTAL SOUTHWEST END
S525	E	8	7'-4"	X		ABUTMENT DIAPHRAGM VERTICAL OUTSIDE GIRDERS
S526	E	45	11'-9"	X		PIER DIAPHRAGM STIRRUP
S527	E	18	9'-7"			PIER DIAPHRAGM STIRRUP
S428	E	54	4'-3"			PIER DIAPHRAGM HORIZONTAL
S929		150	5'-0"	X		ABUT DIAPH TO APPROACH SLAB
S430	E	4	3'-6"			ABUTMENT DIAPHRAGM VERTICAL @ NOTCH
S531	E	2	4'-3"			ABUTMENT DIAPHRAGM VERTICAL @ ENDS
S432	E	10	2'-3"	X		ABUTMENT DIAPHRAGM HORIZONTAL @ NOTCH
S533	E	3	11'-7"	X		ABUTMENT DIAPHRAGM HORIZONTAL NORTHWEST END
S534	E	1	11'-9"	X		ABUTMENT DIAPHRAGM STIRRUP NORTHWEST END
S535	E	1	4'-11"	X		ABUTMENT DIAPHRAGM STIRRUP NORTHWEST END

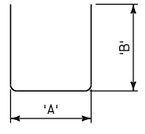
STAINLESS STEEL →

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

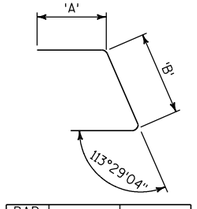
BAR SERIES TABLE

BAR MARK	NO. OF SERIES	LENGTH
S507	2 SERIES OF 29	4'-0" TO 36'-3"
S508	2 SERIES OF 33	1'-0" TO 37'-10"
S513	2 SERIES OF 27	4'-6" TO 34'-8"
S514	2 SERIES OF 34	1'-8" TO 39'-7"

BUNDLE AND TAG EACH SERIES SEPARATELY



BAR MARK	DIM. 'A'	DIM. 'B'
S515	2'-4"	2'-5"
S418	1'-0"	1'-3"
S625	2'-4"	1'-6"
S432	1'-3"	7"



BAR MARK	DIM. 'A'	DIM. 'B'
S623	1'-9"	3'-1"
S624	2'-10"	3'-1"	

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

DRAWN BY GLM | PLANS CK'D. KES

SUPERSTRUCTURE DETAILS

SHEET 18 OF 23

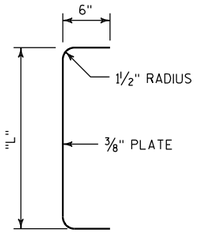
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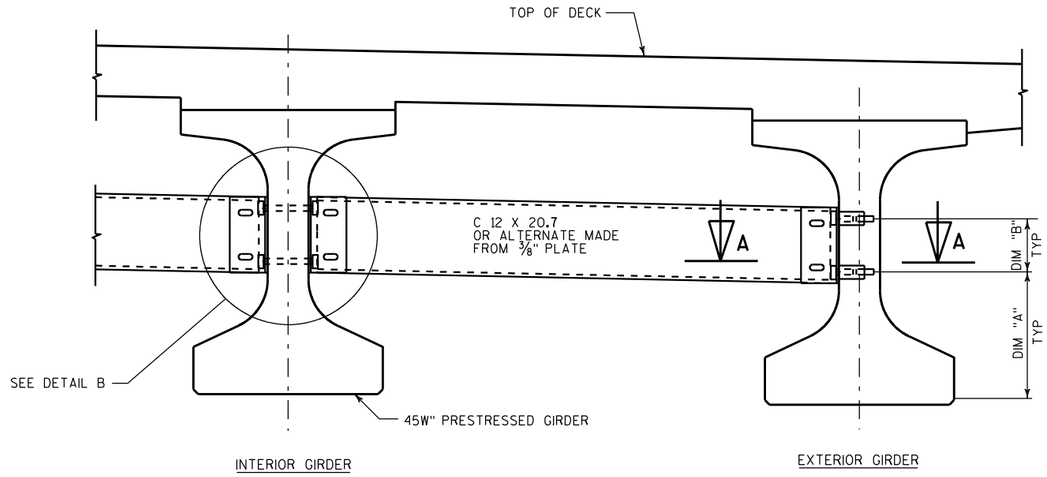
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FILE NAME : S:\FinalDesign\20\10330272_M\Structs\B-51-129\cds\B51129_080506_ss.dgn PLOT DATE : 08-NOV-2013 14:18 PLOT BY : MSCKES PLOT NAME : B51129_080506_ss PLOT SCALE : 2.666667:1

STATE PROJECT NUMBER
1033-02-72



SECTION THRU ALTERNATE DIAPHRAGM



PART TRANSVERSE SECTION AT DIAPHRAGM

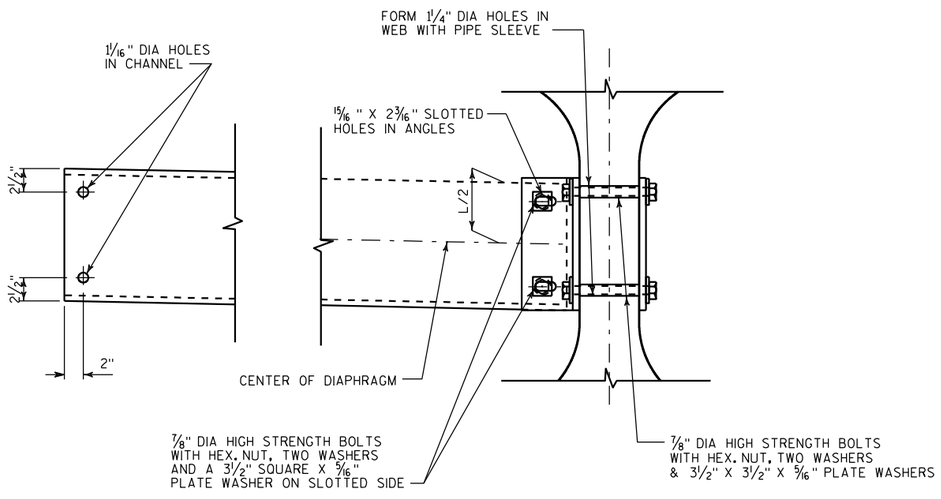
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-51-129", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

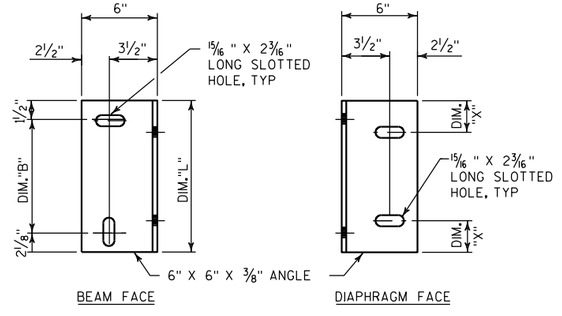
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

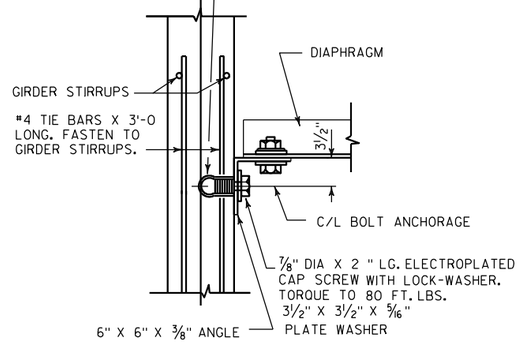


FOR STAGGERED DIAPHRAGMS
(INTERIOR GIRDERS ONLY)

DETAIL B



DIAPHRAGM SUPPORT



SECTION A-A

(FOR EXTERIOR ATTACHMENT)

TABLE

GIRDER HEIGHT	DIM. "A"	DIM. "B"	DIM. "L"	* DIM. "X"
45W"	1'-9⅛"	8⅞"	1'-0½"	2¾"

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

DRAWN BY GLM | PLANS CK'D. KES

STEEL DIAPHRAGM

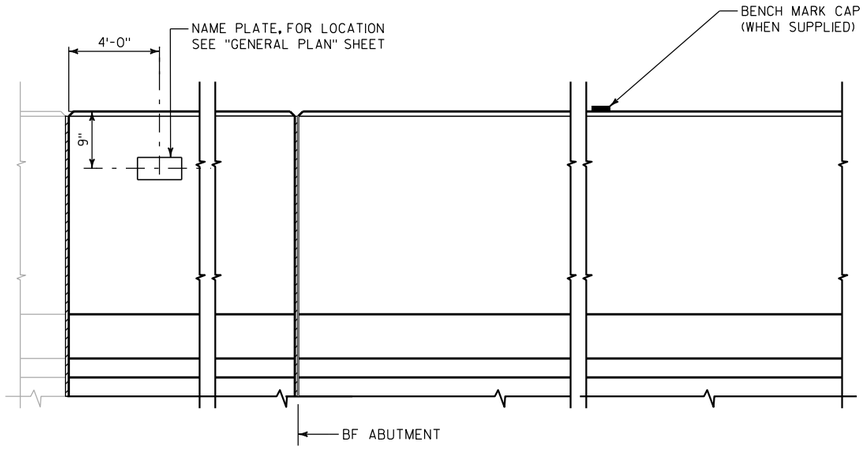
SHEET 19 OF 23

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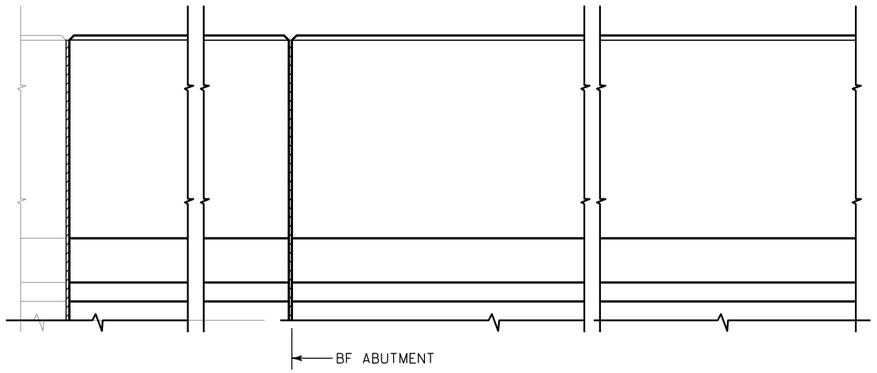
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STATE PROJECT NUMBER
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INSIDE ELEVATION
WEST PARAPET

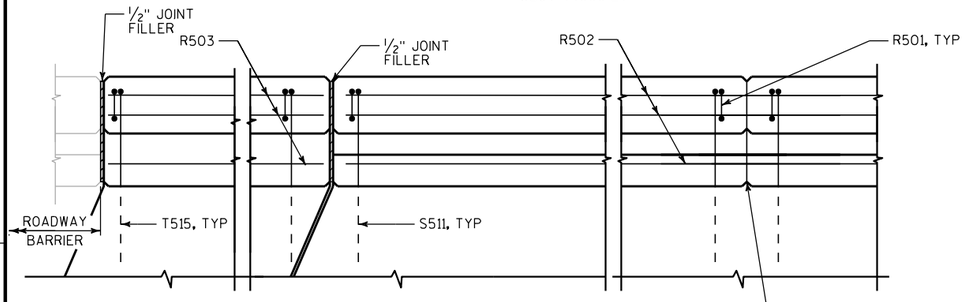


INSIDE ELEVATION
EAST PARAPET

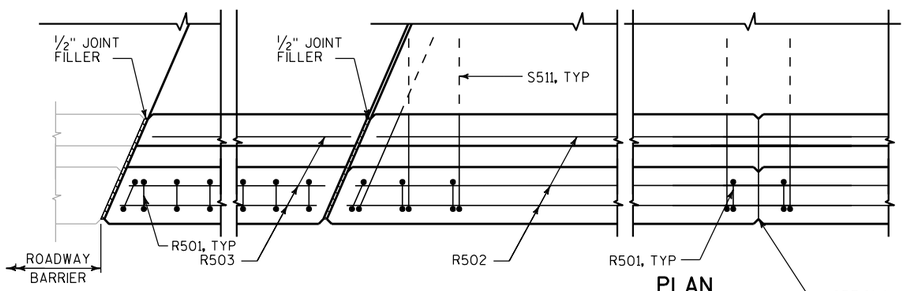
BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
R501	E	762	6'-8"	X	PARAPET VERTICAL TIE
R502	E	80	46'-0"		PARAPET LONGITUDINAL
R503	E	16	18'-6"		PARAPET LONGITUDINAL

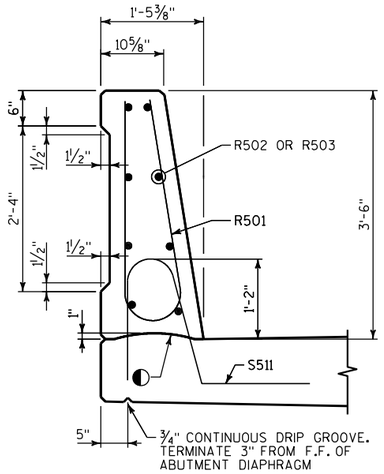
PARAPET REINFORCEMENT QUANTITIES ON APPROACH SLABS ARE INCLUDED IN THE SUPERSTRUCTURE REINFORCEMENT QUANTITY.



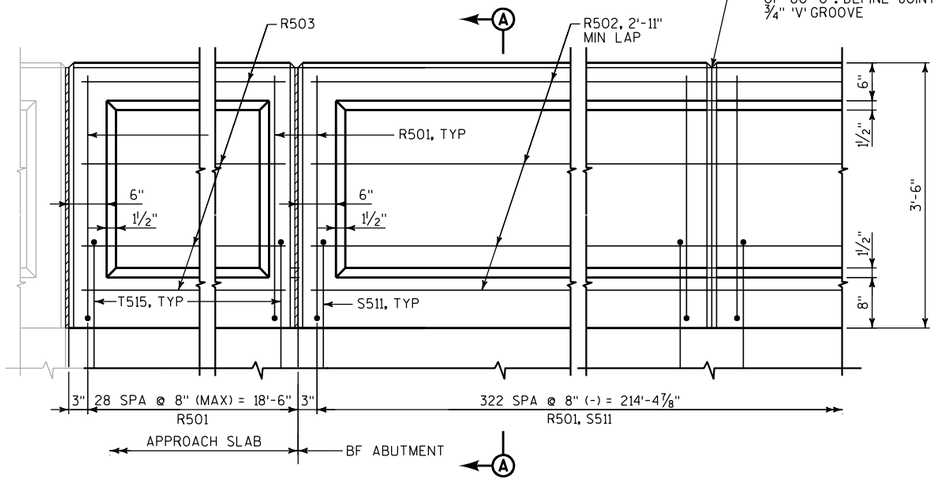
PLAN
WEST PARAPET



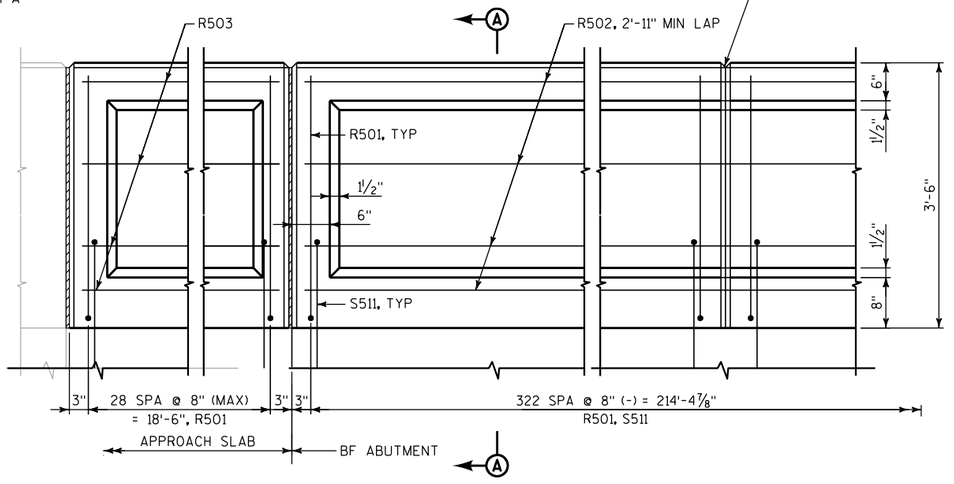
PLAN
EAST PARAPET



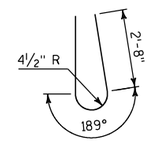
SECTION A-A
SECTION @ APPROACH SLAB SIMILAR



OUTSIDE ELEVATION
WEST PARAPET



OUTSIDE ELEVATION
EAST PARAPET



R501

LEGEND

◐ CONST. JOINT - STRIKE OFF AS SHOWN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

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SINGLE SLOPE PARAPET 42SS MODIFIED

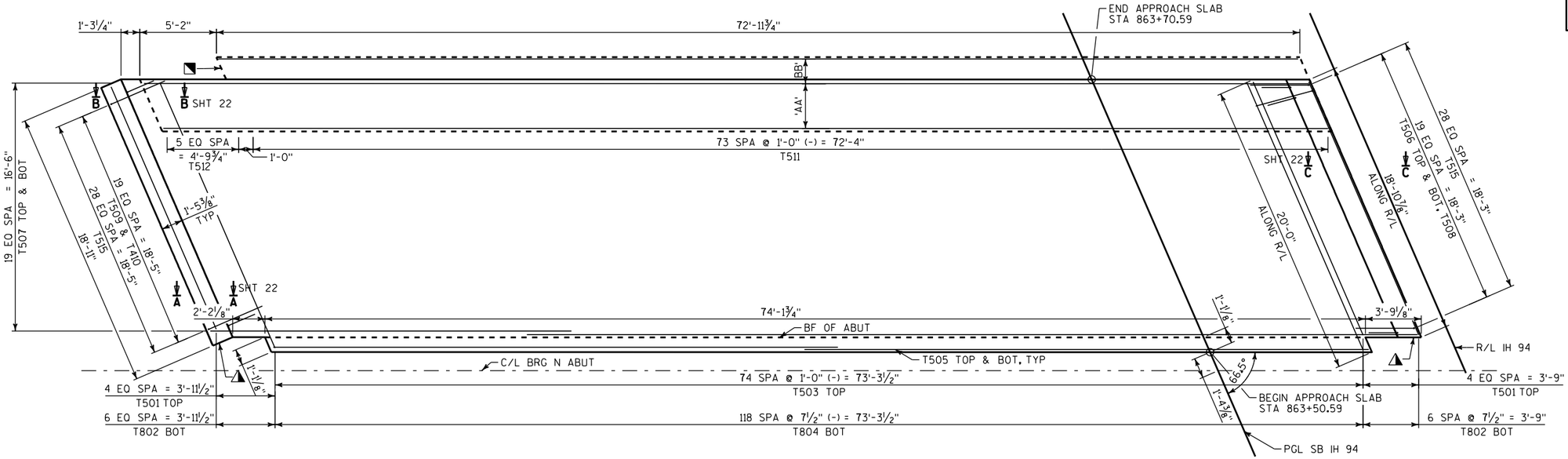
SHEET 20 OF 23

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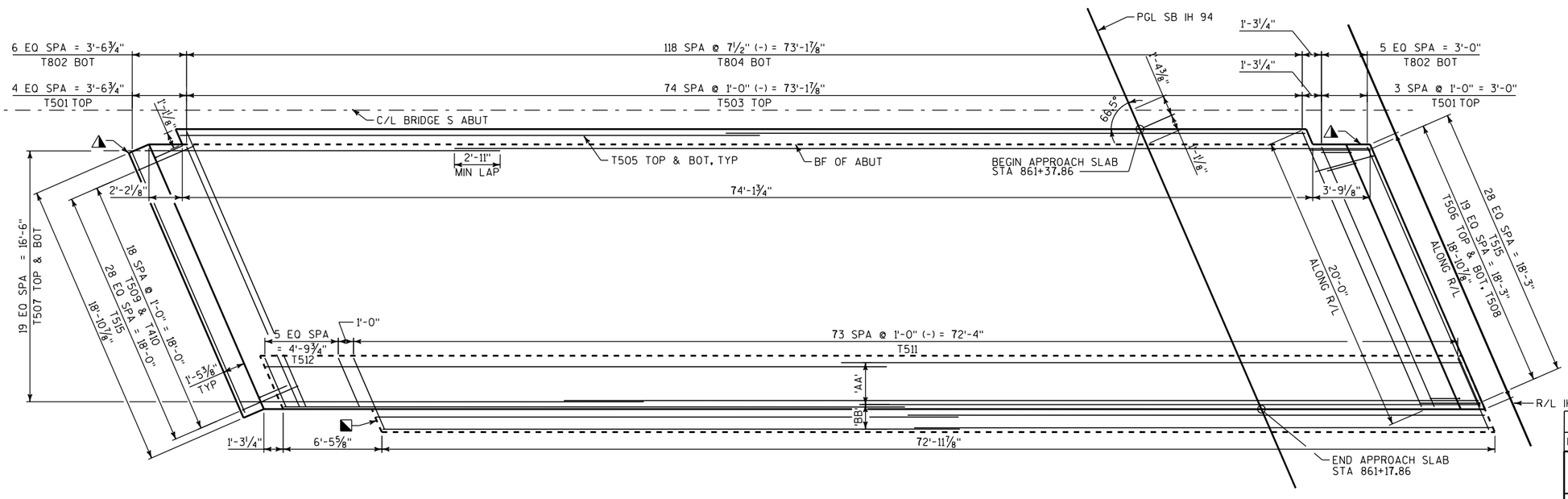
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STATE PROJECT NUMBER
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NORTH APPROACH SLAB



SOUTH APPROACH SLAB

LEGEND

- PROVIDE ½" PREFORMED JOINT FILLER BETWEEN EDGE OF APPROACH SLAB FOOTING AND RETAINING WALL MOMENT SLAB.
- SEAL ALL EXPOSED, HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

'AA' = 3 SPA @ 11" T513
'BB' = 1 SPA @ 10" (-) T514

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

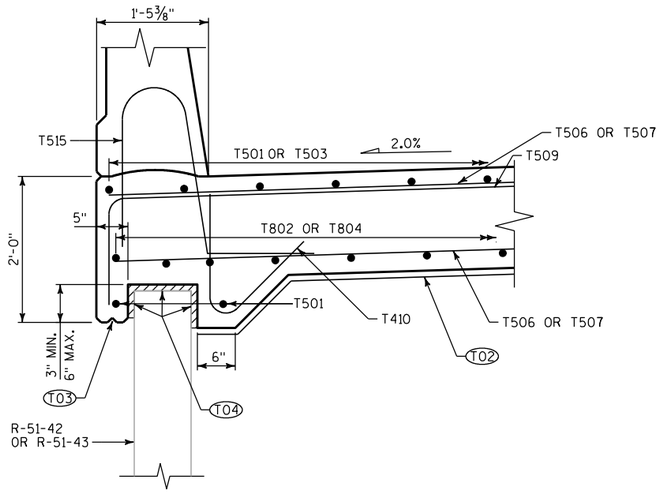
DRAWN BY GLM | PLANS CK'D. KES

STRUCTURAL APPROACH SLAB

SHEET 21 OF 23

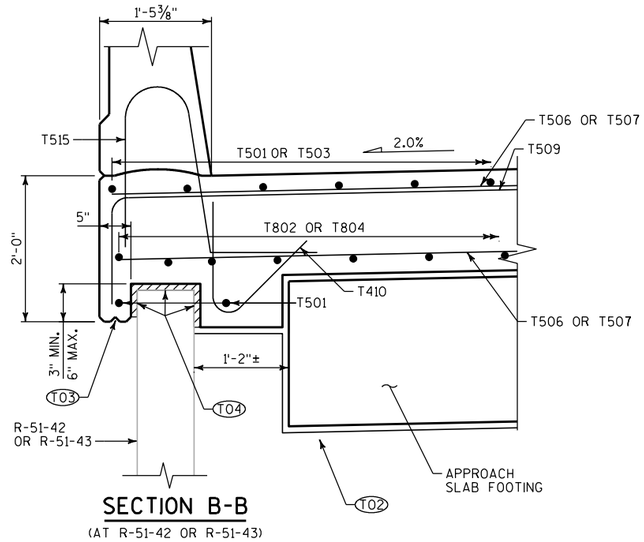
514

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1033-02-72



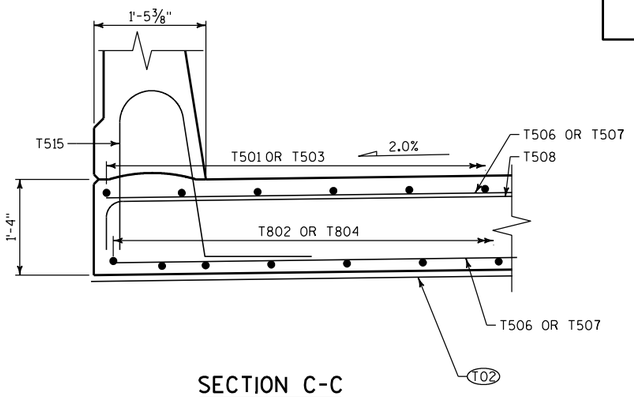
SECTION A-A

(AT R-51-42 OR R-51-43)



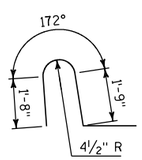
SECTION B-B

(AT R-51-42 OR R-51-43)

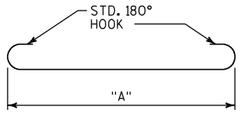


SECTION C-C

(AT EAST SIDE)



T515



BAR	"A"
T802	18'-6"
T804	19'-7"

T802, T804

LEGEND

(T01) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.

(T02) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE. POLYETHYLENE SHEETS SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES".

(T03) ¾" CONT. DRIP GROOVE. TERMINATE 2'-0" FROM ABUTMENT BACKWALL.

(T04) 1" EXPANDED POLYSTYRENE

APPROACH SLAB NOTES

THE DECK SHALL HAVE A TINE FINISH AS DEFINED IN THE STANDARD SPECIFICATIONS.

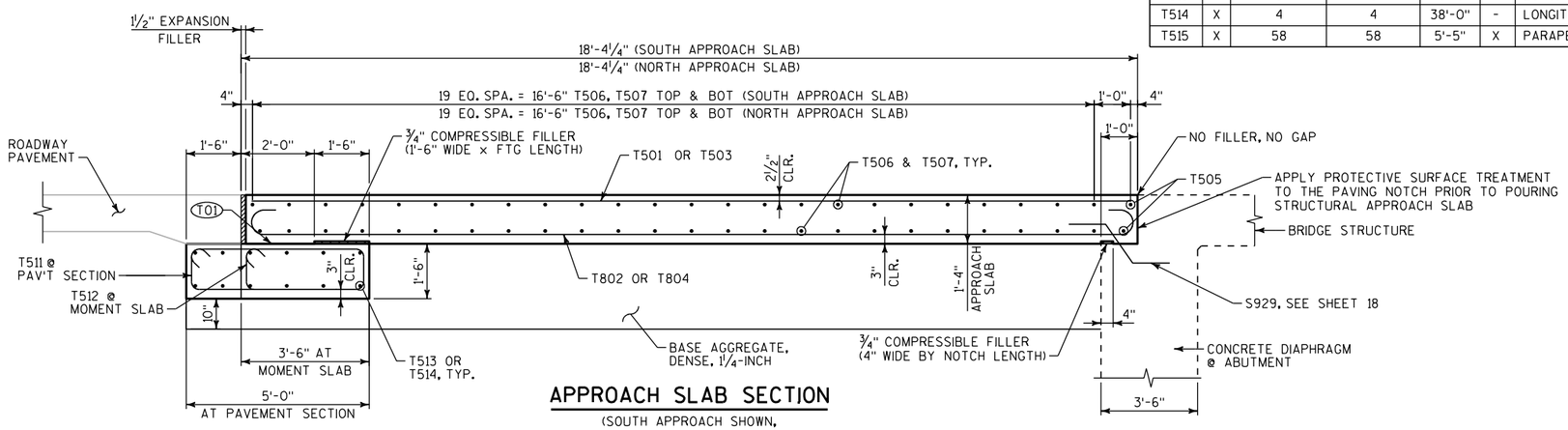
SEE PARAPET SHEETS FOR PARAPET REINFORCING TIE PLACEMENT REQUIRED IN APPROACH SLABS.

IN ADDITION TO THE AREAS OUTLINED IN THE STANDARD SPECIFICATIONS, APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF APPROACH SLAB SURFACE, TOPS OF PARAPETS, INSIDE FACES OF PARAPETS, AND AREAS SHOWN IN THE APPROACH SLAB SECTION.

BILL OF BARS

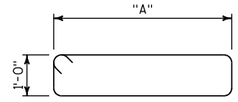
NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NORTH APPR SLAB	SOUTH APPR SLAB	LENGTH	BENT	LOCATION
T501	X	10	9	18'-6"	-	ALONG R/L - TOP - OUTSIDE OF PAVING NOTCH
T802	X	14	13	20'-4"	X	ALONG R/L - BOT - OUTSIDE OF PAVING NOTCH
T503	X	75	75	19'-7"	-	ALONG R/L - TOP
T804	X	119	119	21'-5"	X	ALONG R/L - BOT
T505	X	4	4	38'-6"	-	TRANSVERSE - INSIDE PAVING NOTCH
T506	X	40	40	60'-0"	-	TRANSVERSE - EAST SIDE
T507	X	40	40	23'-6"	-	TRANSVERSE - WEST SIDE
T508	X	20	20	5'-9"	X	TRANSVERSE - EAST SIDE - OUTSIDE
T509	X	20	19	5'-9"	X	TRANSVERSE - WEST SIDE - OUTSIDE
T410	X	20	19	3'-0"	X	TRANSVERSE - WEST SIDE - OUTSIDE
T511	X	74	74	12'-5"	X	TRANSVER STIRRUP - FOOTING
T512	X	6	6	9'-1"	X	TRANSVER STIRRUP - FOOTING - WEST
T513	X	8	8	40'-9"	-	LONGITUDINAL - INTERIOR - FOOTING
T514	X	4	4	38'-0"	-	LONGITUDINAL - EXTERIOR - FOOTING
T515	X	58	58	5'-5"	X	PARAPET DOWEL



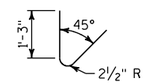
APPROACH SLAB SECTION

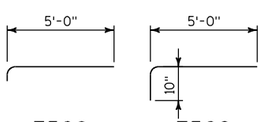
(SOUTH APPROACH SHOWN, NORTH APPROACH SIMILAR BUT OPPOSITE)



BAR	"A"
T511	4'-11"
T512	3'-3"

T511, T512





T508 T509 T410

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

DRAWN BY GLM | PLANS CK'D. KES

STRUCTURAL APPROACH SLAB DETAILS

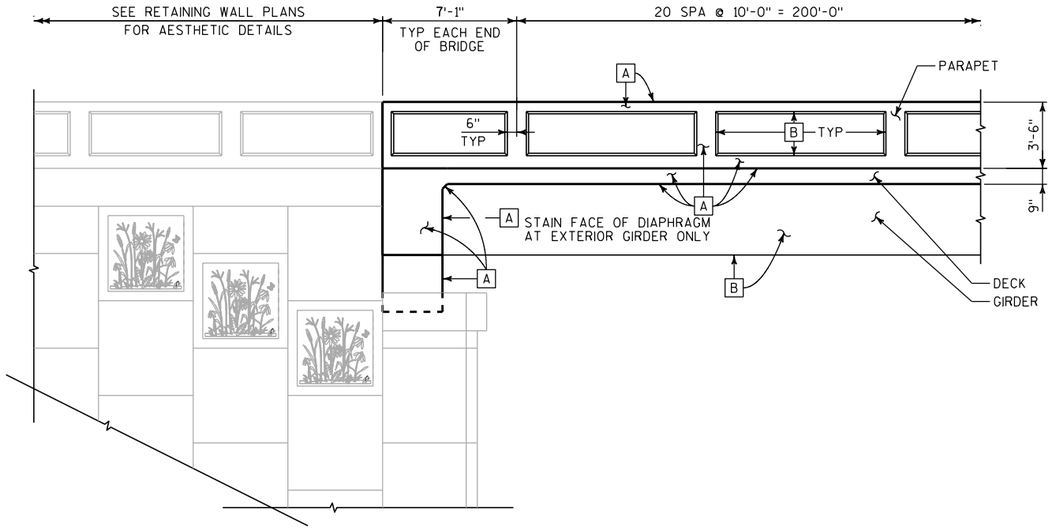
SHEET 22 OF 23

515

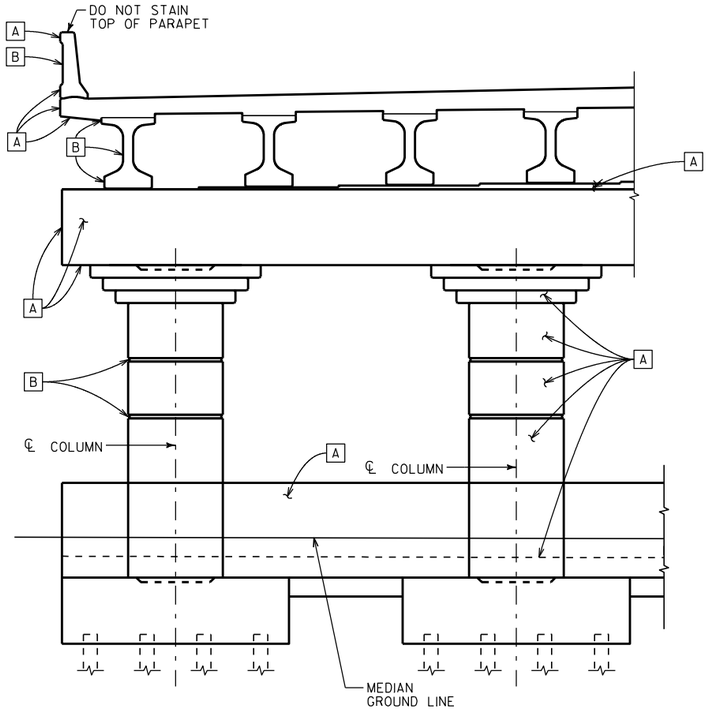
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STATE PROJECT NUMBER
1033-02-72



ELEVATION OF ABUTMENT & PARAPET



ELEVATION OF PIER

CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION	NOTES
A	BASE COLOR	PIER	PIER CAP, COLUMNS & FILLER WALL , EXCEPT AS NOTED FOR ACCENT COLORS TO 1'-0" BELOW FINAL GRADE
		SLOPED FACE PARAPET	EXTERIOR SIDE, EXCEPT AS NOTED FOR ACCENT COLORS
		DECK	FASCIA & EXPOSED UNDERSIDE TO EXTERIOR GIRDER FLANGE
		ABUTMENTS	FRONT FACE FROM UNDERSIDE OF DECK TO FINAL GRADE BEHIND MSE WALL INCLUDING BETWEEN ALL GIRDERS
B	ACCENT COLOR #1	COLUMNS	HORIZONTAL RUSTICATIONS
		SLOPED FACE PARAPET	RECESSED PANELS ON EXTERIOR SIDES
		GIRDERS	EXTERIOR FACE AND UNDERSIDE OF EXTERIOR GIRDERS

STAIN COLORS

THE FINAL COLOR OF THE CONCRETE FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:

BASE COLOR : 33564
ACCENT COLOR #1: 33448

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-129

DRAWN BY GLM | PLANS CK'D. KES

AESTHETIC DETAILS

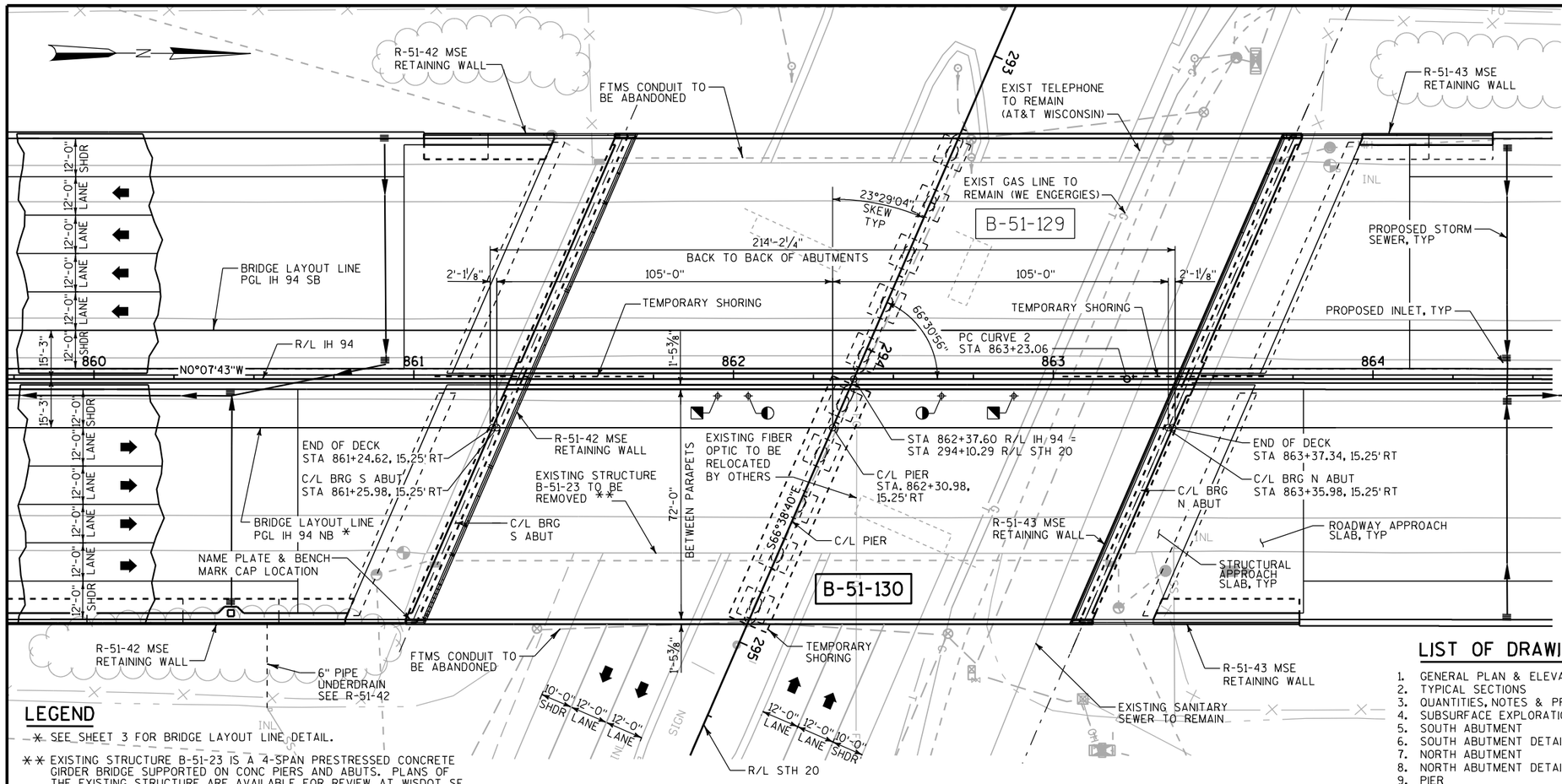
SHEET 23 OF 23

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1033-02-72



LEGEND

* SEE SHEET 3 FOR BRIDGE LAYOUT LINE DETAIL.

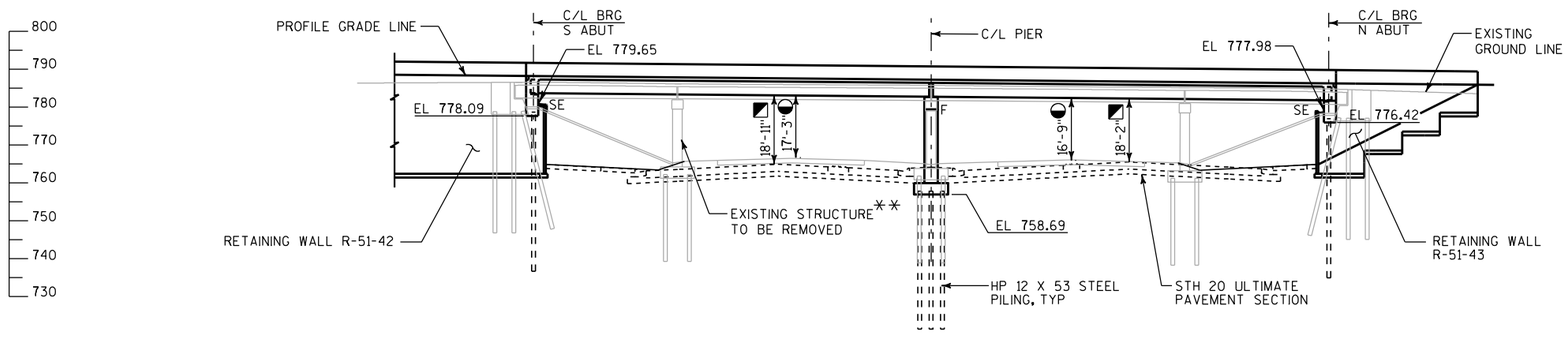
** EXISTING STRUCTURE B-51-23 IS A 4-SPAN PRESTRESSED CONCRETE GIRDER BRIDGE SUPPORTED ON CONC PIERS AND ABUTS. PLANS OF THE EXISTING STRUCTURE ARE AVAILABLE FOR REVIEW AT WISDOT SE REGION OFFICE, 141 NW BARSTOW STREET, WAUKESHA, WI, OR THROUGH THE WISDOT STRUCTURES WEBSITE.

◐ POINT OF MINIMUM VERTICAL CLEARANCE INTERIM CONDITION

◥ POINT OF MINIMUM VERTICAL CLEARANCE ULTIMATE CONDITION

PLAN

(2 SPAN - 45W" PRESTRESSED GIRDERS)



ELEVATION

(LOOKING WEST)

DESIGN DATA

DESIGN SPECIFICATION: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.18
OPERATING RATING FACTOR: RF = 1.66
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

STRUCTURE IS DESIGNED FOR A 1½" WEARING SURFACE PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY:
- SUPERSTRUCTURE (HPC) ..... f'c = 4,000 psi
- SUBSTRUCTURE ..... f'c = 4,000 psi
- 45W-INCH PRESTRESSED GIRDERS ..... f'c = 8,000 psi

BAR STEEL REINFORCEMENT ..... fy = 60,000 psi
STAINLESS STEEL BAR REINFORCEMENT ..... fy = 60,000 psi
STEEL PILING ..... fy = 50,000 psi
PRESTRESSING STRANDS ..... ULTIMATE TENSILE STRENGTH = 270,000 psi

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP 12x53 STEEL PILING REQUIRED DRIVING RESISTANCE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD:
- SOUTH ABUTMENT ..... 185 TONS PER PILE
- PIER ..... 160 TONS PER PILE
- NORTH ABUTMENT ..... 185 TONS PER PILE

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.65 USING THE PDA/CAPWAP ACCEPTANCE METHOD TO DETERMINE DRIVEN PILE CAPACITY.
ESTIMATED PILE LENGTHS:
- SOUTH ABUTMENT ..... 90 FEET
- PIER ..... 65 FEET
- NORTH ABUTMENT ..... 90 FEET

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTIONS
3. QUANTITIES, NOTES & PROFILE GRADE LINES
4. SUBSURFACE EXPLORATION
5. SOUTH ABUTMENT
6. SOUTH ABUTMENT DETAILS
7. NORTH ABUTMENT
8. NORTH ABUTMENT DETAILS
9. PIER
10. PIER DETAILS
11. PIER BARRIER WALL DETAILS 1
12. PIER BARRIER WALL DETAILS 2
13. 45W" PRESTRESSED GIRDER
14. 45W" PRESTRESSED GIRDER DETAILS
15. SUPERSTRUCTURE FRAMING PLAN
16. SUPERSTRUCTURE REINFORCEMENT
17. SUPERSTRUCTURE CROSS SECTION
18. SUPERSTRUCTURE DETAILS
19. STEEL DIAPHRAGM
20. SINGLE SLOPE PARAPET 42SS MODIFIED
21. STRUCTURAL APPROACH SLAB
22. STRUCTURAL APPROACH SLAB DETAILS
23. AESTHETIC DETAILS

TRAFFIC DATA

STH 20	IH 94
A.D.T. = 29,440 (2005)	A.D.T. = 82,770 (2005)
A.D.T. = 40,050 (2030)	A.D.T. = 114,600 (2035)
R.D.S. = 50 MPH	R.D.S. = 70 MPH

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

WISCONSIN
KARL E. SCHMID
E-30812
MILWAUKEE, WI
PROFESSIONAL ENGINEER
11/08/2013

NO.	DATE	REVISION	BY

Milwaukee Transportation Partners LLC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher 11/11/13
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-51-130

IH 94 WB/USH 41 NB OVER STH 20

COUNTY	TOWN/~~CITY/VILLAGE~~
RACINE	YORKVILLE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
BM/DA	KES	GLM	KES

GENERAL PLAN & ELEVATION

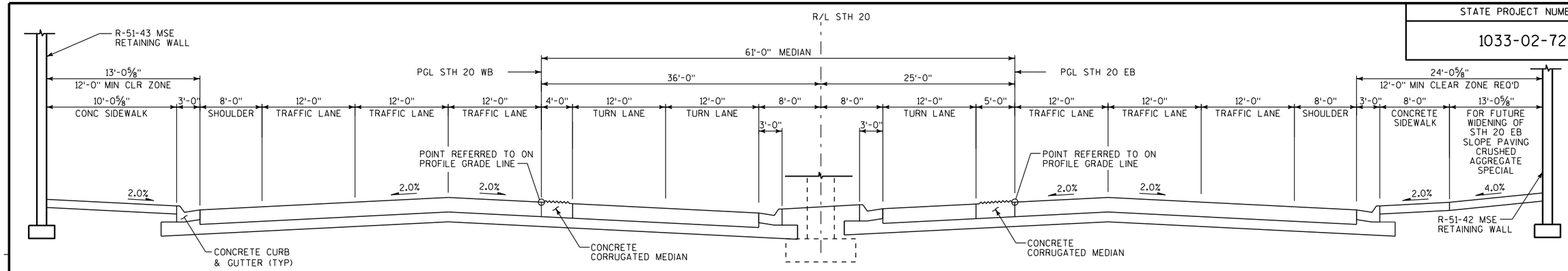
SHEET 1 OF 23

517

8

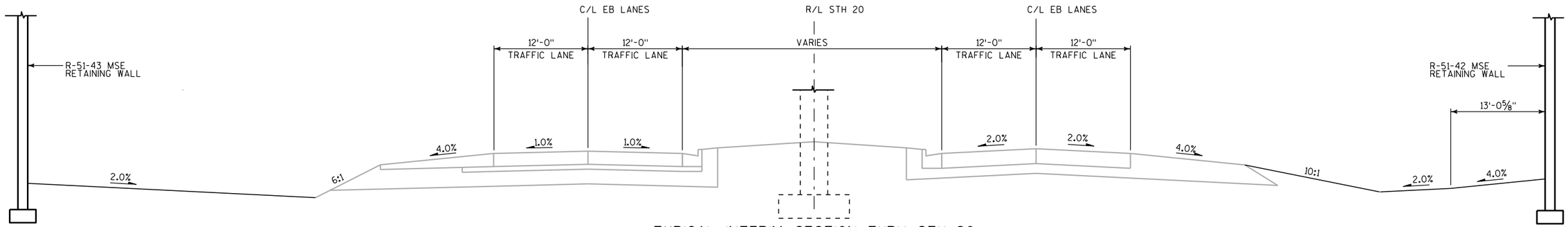
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STATE PROJECT NUMBER
1033-02-72



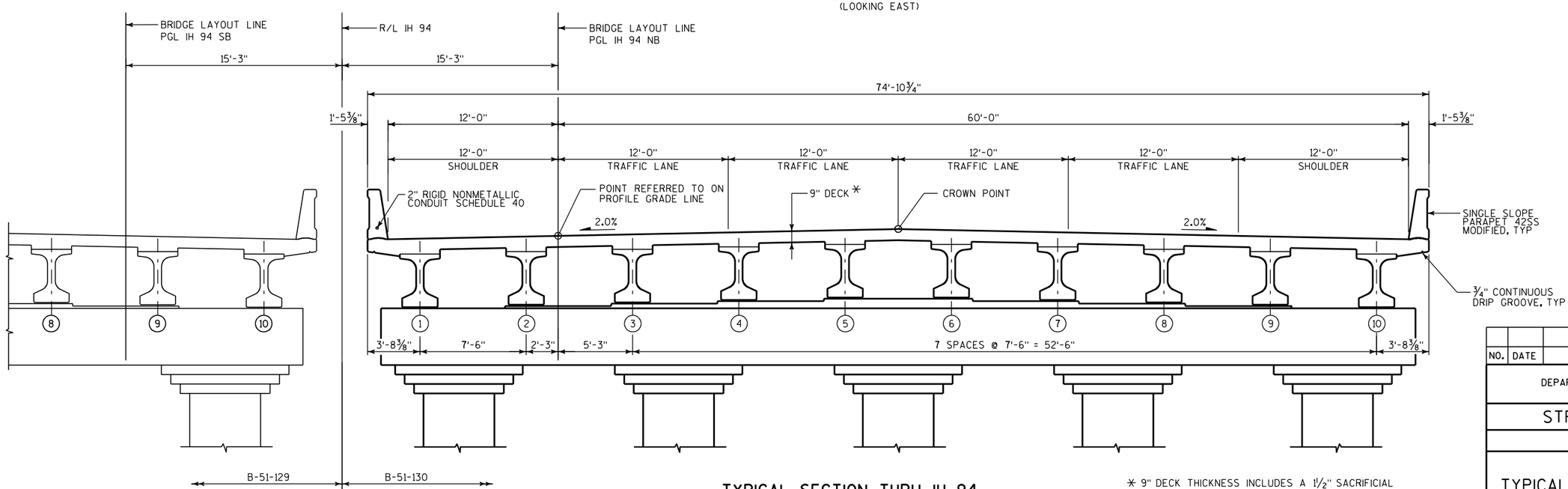
TYPICAL ULTIMATE SECTION THRU STH 20

(LOOKING EAST)



TYPICAL INTERIM SECTION THRU STH 20

(LOOKING EAST)



TYPICAL SECTION THRU IH 94

(LOOKING NORTH)

* 9" DECK THICKNESS INCLUDES A 1½" SACRIFICIAL WEARING SURFACE PLACED INTERGRAL WITH THE DECK AT INITIAL CONSTRUCTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-130

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TYPICAL SECTIONS

SHEET 2 OF 23

518

8

8

FILE NAME : S:\FinalDesign\20\10330272_M\Structs\B-51-130\cds\B51130_080102_ts.dgn PLOT DATE : 08-NOV-2013 14:30 PLOT BY : MSCKES PLOT NAME : B51130_080102_ts PLOT SCALE : 8:1

STATE PROJECT NUMBER
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TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	SOUTH APPR SLAB	SOUTH ABUTMENT	PIER	NORTH ABUTMENT	NORTH APPR SLAB	SUPER	TOTAL
203.0200	REMOVING OLD STRUCTURE STATION 862+31.0	LS	----------	----------	----------	----------	----------	----------	1
203.0210.S.0001	ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-51-23	LS	----------	----------	----------	----------	----------	----------	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-51-130	LS	----------	----------	----------	----------	----------	----------	1
206.6010.S	TEMPORARY SHORING	SF	----------	1,120	1,200	1,120	----------	----------	3,440
210.0100	BACKFILL STRUCTURE	CY	----------	155	----------	170	----------	----------	325
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	225	----------	----------	----------	225	----------	450
502.0100	CONCRETE MASONRY BRIDGES	CY	21	59	173	62	21	----------	336
502.3200	PROTECTIVE SURFACE TREATMENT	SY	20	----------	----------	----------	20	210	250
503.0146	PRESTRESSED GIRDER I TYPE 45W-INCH	LF	----------	----------	----------	----------	----------	2,108	2,108
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	----------	----------	4,000	----------	----------	----------	4,000
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	15,060	4,760	32,020	4,840	14,980	158,360	230,020
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	----------	10	20	10	----------	----------	40
506.4000	STEEL DIAPHRAGMS B-51-130	EACH	----------	----------	----------	----------	----------	36	36
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	----------	16	----------	16	----------	----------	32
517.1010.S.0002	CONCRETE STAINING B-51-130	SF	----------	360	2,545	390	----------	7,290	10,585
550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	----------	1,170	2,925	1,170	----------	----------	5,265
604.0400	SLOPE PAVING CONCRETE	SY	----------	18	----------	18	----------	----------	36
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	----------	----------	----------	----------	----------	216	216
653.0220	JUNCTION BOXES 18X6X6-INCH	EACH	----------	----------	----------	----------	----------	2	2
SPV.0035.4000	HPC MASONRY STRUCTURES	CY	74	----------	----------	----------	74	655	803
SPV.0060.4100	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	----------	2	3	2	----------	----------	7
SPV.0060.4110	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	----------	2	3	2	----------	----------	7
SPV.0085.4300	BAR STEEL REINFORCEMENT HS STAINLESS BRIDGES	LB	----------	----------	----------	----------	----------	2,550	2,550
SPV.0165.4700	LONGITUDINAL GROOVING BRIDGE DECK	SF	1,435	----------	----------	----------	1,435	15,320	18,190
	NON-BID ITEMS								
	PREFORMED JOINT FILLER	SIZE							1/2" & 3/4"
	NON-BITUMINOUS JOINT FILLER	SIZE							1/2" & 3/4"
	NAME PLATE	EACH							1

NOTE: ALL ITEMS ARE CATEGORY 2100

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

CONSTRUCTION SHALL BE STAGED WITH STRUCTURE B-51-129 CONSTRUCTED IN THE SECOND STAGE. IH 94 TRAFFIC SHALL BE MAINTAINED ON EXISTING STRUCTURE B-51-23.

BAR STEEL REINFORCEMENT SHALL BE PLACED WITH 2" OF CLEAR CONCRETE COVER UNLESS OTHERWISE NOTED. THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE DECK SHALL BE PLACED WITH 3 1/2" OF CLEAR CONCRETE COVER.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NAVD 88 DATUM.

ALL REINFORCING BARS ARE ENGLISH. THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

THE SLOPE OF THE FILL IN FRONT OF THE SOUTH ABUTMENT SHALL BE COVERED WITH SLOPE PAVING TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET. THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMIT OF EXCAVATION FOR STRUCTURES.

THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE DEPTH OF 2 1/2", WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.

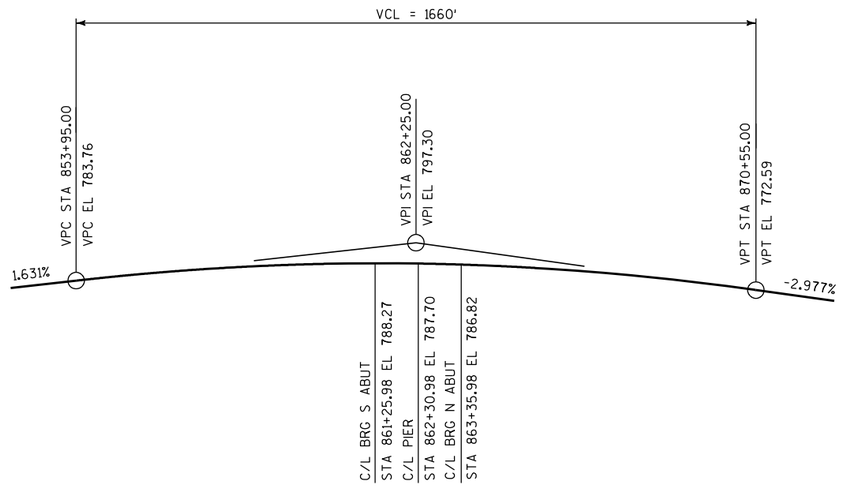
THE EXISTING BRIDGE B-51-23 IS A FOUR SPAN PRESTRESSED CONCRETE GIRDER BRIDGE. THE ENTIRE STRUCTURE SHALL BE REMOVED. PILING WITHIN THE FOOTPRINT OF THE PROPOSED PIER FOOTING OR ABUTMENT SHALL BE CUT OFF 1'-0" BELOW THE BOTTOM OF THE PROPOSED FOOTING OR ABUTMENT. ALL OTHER PILING SHALL BE CUT OFF 2'-0" BELOW SUBGRADE.

EXST STH 20 PAV'T ELEVATIONS

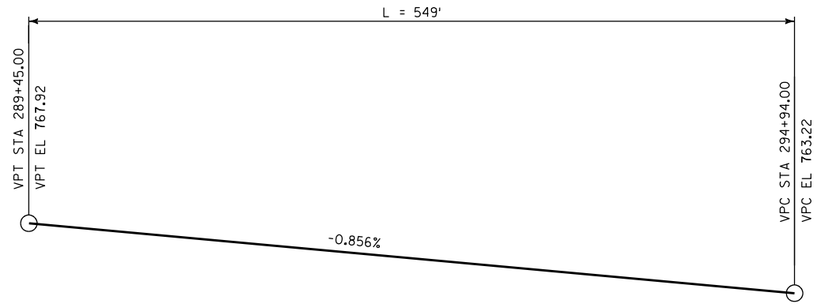
R/L STH 20 STATION	EXST ELEVATIONS	
	EB CROWN	WB CROWN
293+00	766.51	766.43
293+25	766.23	766.35
293+50	766.17	766.17
293+75	766.02	765.99
294+00	765.88	765.80
294+25	765.73	765.62
294+50	765.58	765.43
294+75	765.44	765.33
295+00	765.32	765.20
295+25	765.24	765.09

HORIZONTAL CURVE DATA

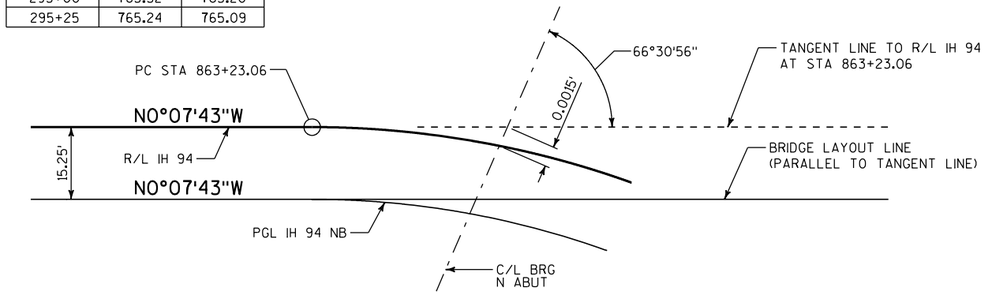
(CURVE 2)
PI = STA 867+54.65
N = 186023.63
E = 594013.56
DELTA = 0°21'35"
D = 0°02'30"
R = 137503.87
T = 431.59
L = 863.17
E = 0.68
PC = STA 863+23.06
PT = STA 871+86.24



PROFILE GRADE LINE - IH 94 NB



PROFILE GRADE LINE - ULTIMATE STH 20 EB & WB



BRIDGE LAYOUT LINE

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STRUCTURE B-51-130

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QUANTITES, NOTES AND PROFILE GRADE LINES

SHEET 3 OF 23

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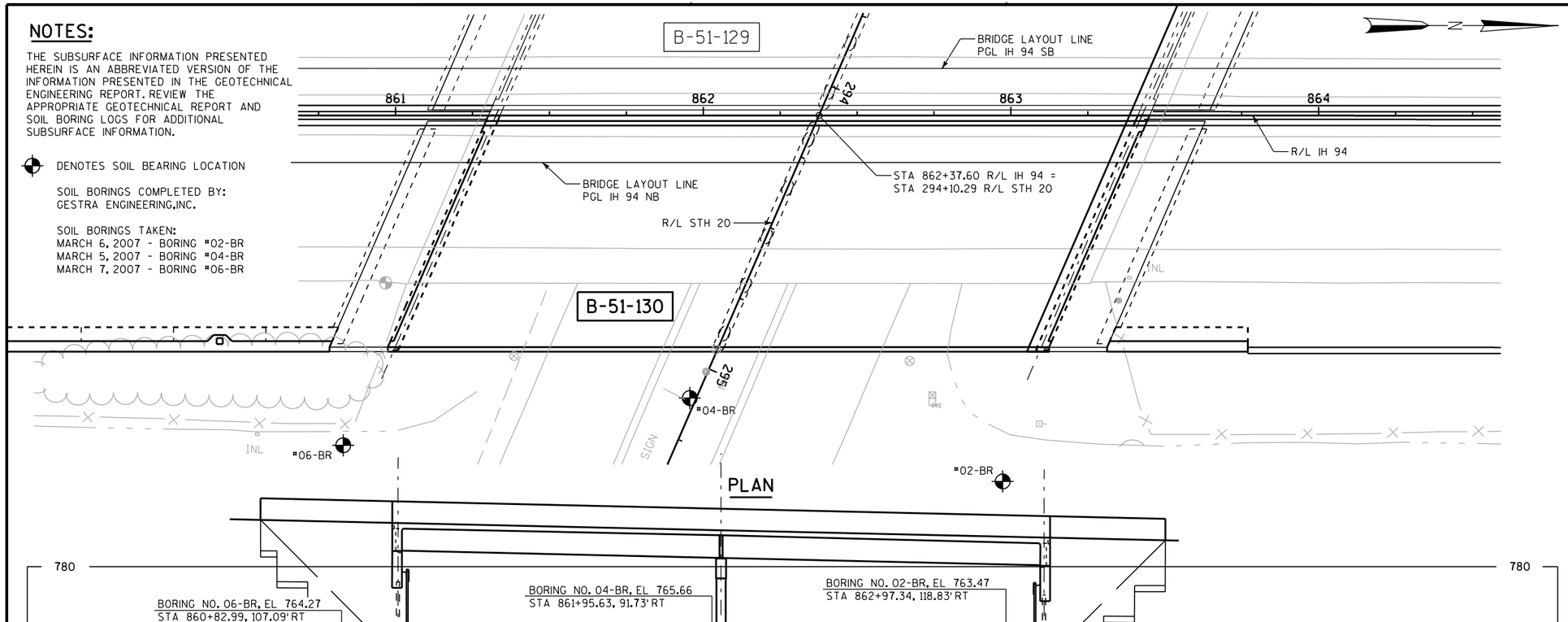
NOTES:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

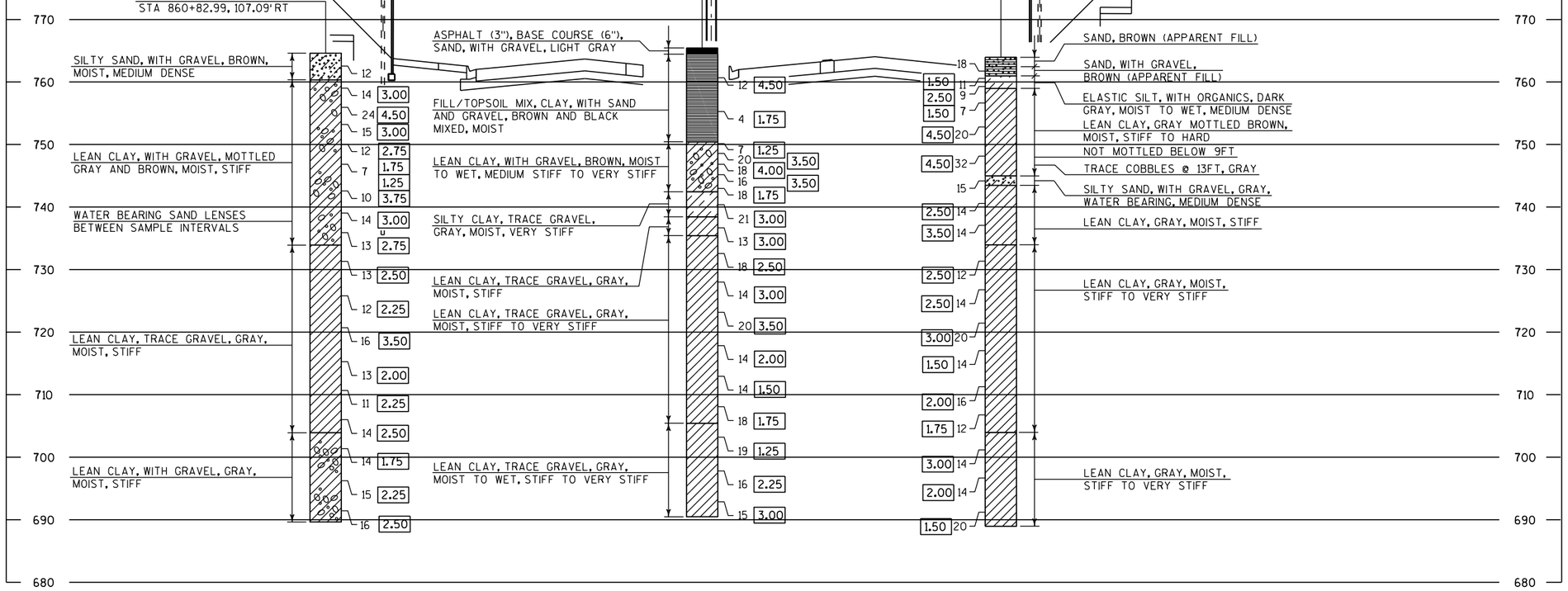
⊕ DENOTES SOIL BEARING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING,INC.

SOIL BORINGS TAKEN:
MARCH 6, 2007 - BORING #02-BR
MARCH 5, 2007 - BORING #04-BR
MARCH 7, 2007 - BORING #06-BR



PLAN



ELEVATION

STATE PROJECT NUMBER

1033-02-72

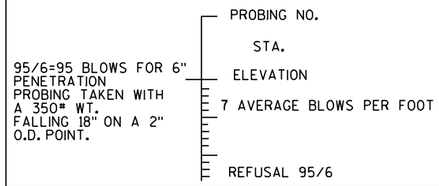
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

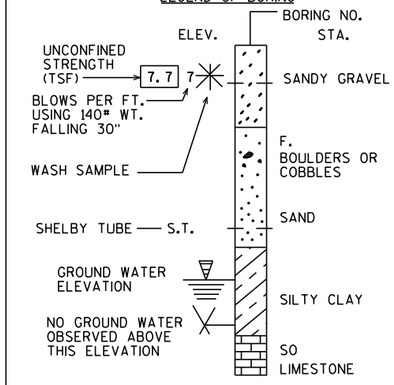
MATERIAL SYMBOLS

TOPSOIL / FILL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

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STRUCTURE B-51-130

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SUBSURFACE EXPLORATION

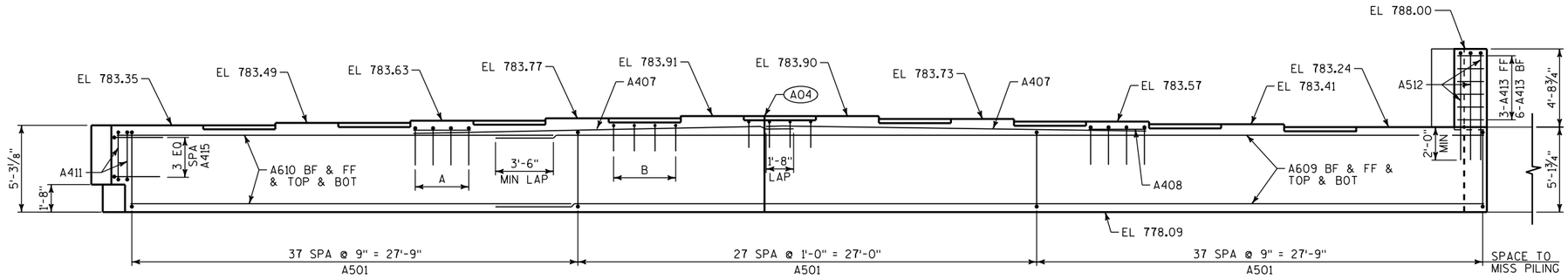
SHEET 4 OF 23

520

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8

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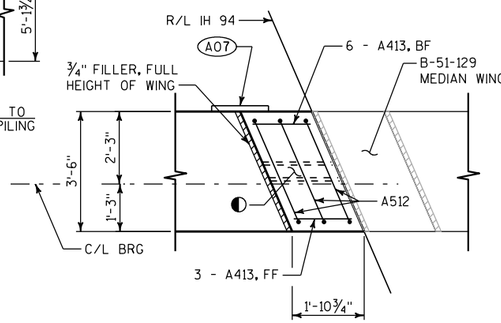


ELEVATION

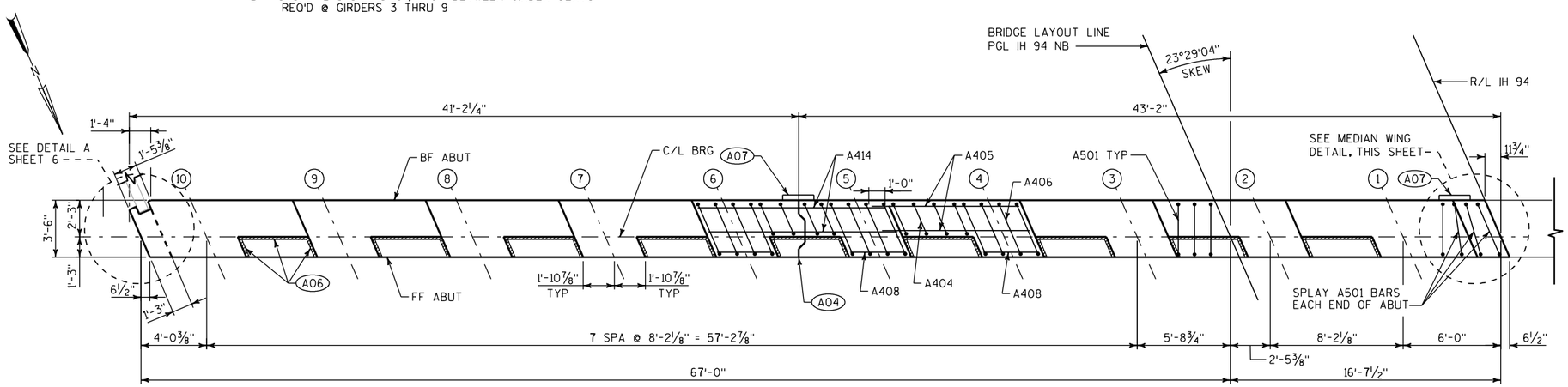
(LOOKING SOUTH)

A - 3 SPA @ 1'-1" = 3'-3", ADD'T A406 SEAT REINF REQ'D @ GIRDERS 3 THRU 8

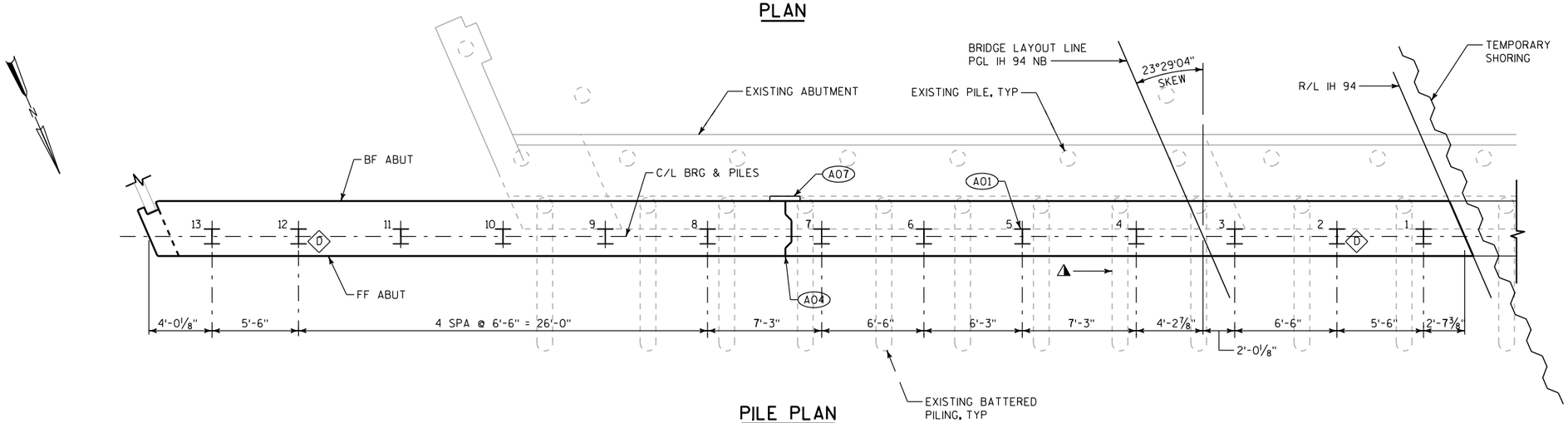
B - 3 SPA @ 1'-3" = 3'-9", A404 BETWEEN GIRDER SEATS REQ'D @ GIRDERS 3 THRU 9



MEDIAN WING DETAIL



PLAN



PILE PLAN

NOTES:

(A01) HP12X53 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 185 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD.
ESTIMATED PILE LENGTH = 90 FEET

NOTE - PROPOSED PILES MAY BE MOVED UP TO 8" ALONG C/L BRG & PILES TO AVOID CONFLICTS WITH EXISTING PILES. IF GREATER ADJUSTMENT IS NECESSARY, CONTACT THE ENGINEER FOR ADDITIONAL INSTRUCTIONS BEFORE PROCEEDING.

LOCATION OF EXISTING PILES IS SHOWN BASED ON AS-BUILT INFORMATION ONLY. FIELD VERIFY PILE LOCATIONS IMMEDIATELY AFTER EXPOSURE AND NOTIFY THE ENGINEER OF ANY DEVIATIONS NOTED.

◇D DYNAMIC PILE LOAD TESTING.

(A04) KEYED CONST JOINT FORMED BY BEVELED 2" x 8".

(A06) ¾" CORK FILLER UP VERT BEAM SEAT FACES, TYP.

(A07) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

◭ CUT OFF PILING IN EXISTING FOOTING THAT IS IN THE FOOTPRINT OF THE PROPOSED MSE WALL 1'-0" BELOW BOTTOM OF PROPOSED MSE WALL LEVELING PAD. DO NOT INCORPORATE EXISTING PILING INTO PROPOSED ABUTMENT.

◐ CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" KEYWAY WITH MEMBRANE ON BACKFACE

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STRUCTURE B-51-130

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SOUTH ABUTMENT

SHEET 5 OF 23

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8

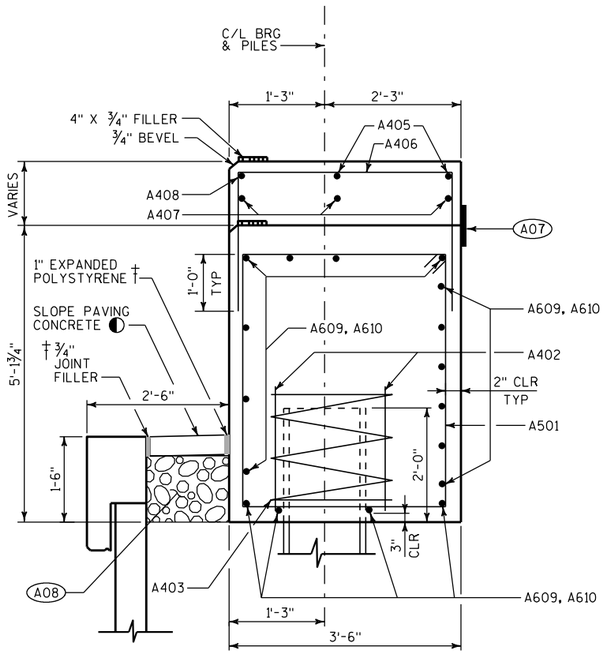
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LEGEND

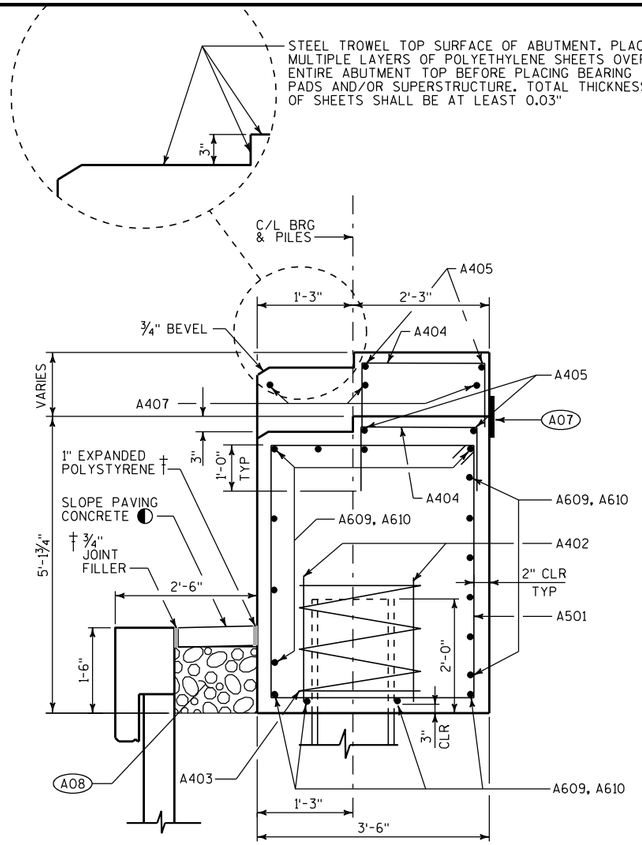
† SEAL ALL EXPOSED HORIZ & VERT SURFACES OF FILLER WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.

◐ SLOPE CONCRETE PAD DOWN 3/4" FROM FRONT FACE OF ABUTMENT TO BACK OF CONCRETE COPING



SECTION THRU BODY

(AT GIRDER SEATS)

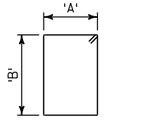


SECTION THRU BODY

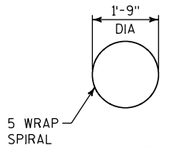
(BETWEEN GIRDER SEATS)

BILL OF BARS

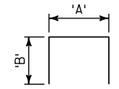
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A501	E	104	15'-11"	X		ABUT BODY STIRRUPS
A402	E	26	2'-3"			ABUT PILES - 2 PER PILE
A403	E	13	28'-0"	X		ABUT PILES - 1 PER PILE
A404	E	24	4'-5"	X		ABUT BODY TOP - BETWEEN BEAM SEATS
A405	E	16	9'-2"			ABUT BODY TOP - HORIZ BETWEEN BEAM SEATS
A406	E	24	7'-7"	X		ABUT BODY TOP - UNDER GIRDERS 3 - 9
A407	E	6	23'-3"			ABUT BODY TOP - HORIZ UNDER GIRDERS 3 - 9
A408	E	6	3'-6"			ABUT BODY TOP - HORIZ UNDER GIRDERS 3 - 9
A609	E	17	60'-0"			ABUT BODY - HORIZ
A610	E	17	26'-7"			ABUT BODY - HORIZ
A411	E	1	13'-10"	X		ABUT BODY END STIRRUPS
A512	E	3	16'-4"	X		MEDIAN WING - VERTICAL TIE
A413	E	9	1'-6"			MEDIAN WING - HORIZONTAL
A414	E	2	11'-7"			ABUT BODY TOP - BETWEEN GIRDERS 5 & 6
A415	E	4	7'-0"	X		ABUT BODY - HORIZ ENDS
A416	E	4	8'-9"	X		ABUT BODY END - HORIZ TIE
A417	E	7	2'-5"	X		ABUT BODY END - HORIZ TIE
A418	E	1	3'-2"	X		ABUT BODY END - VERT



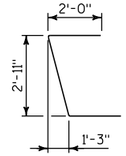
BAR MARK	DIM. 'A'	DIM. 'B'
A501	3'-2"	4'-6"
A411	2'-5"	3'-2"



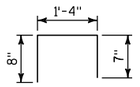
A403



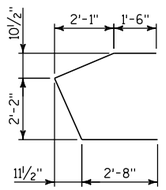
BAR MARK	DIM. 'A'	DIM. 'B'
A404	2'-1"	1'-3"
A406	3'-5"	2'-2"
A512	3'-5"	6'-7"



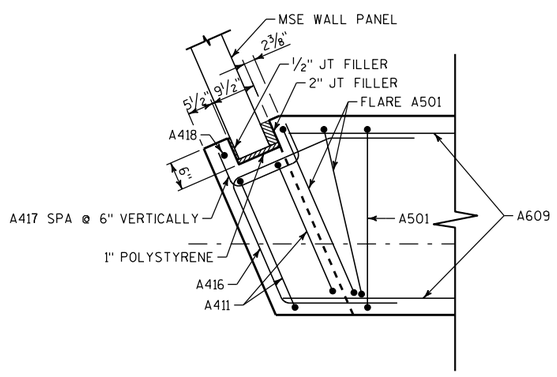
A415



A417



A416

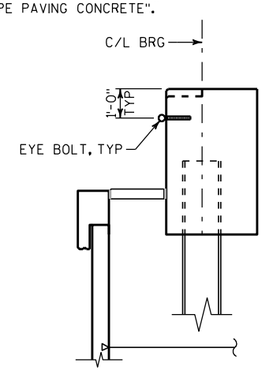


DETAIL A

NOTES:

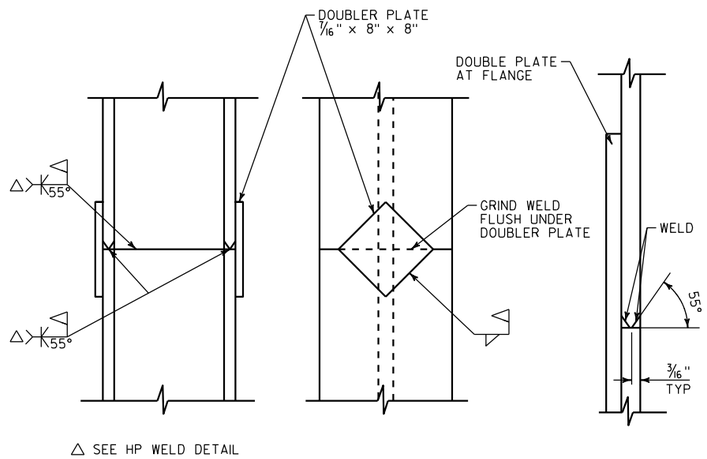
(A07) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A08) SIZE 2 COARSE AGGREGATE OR MSE BACKFILL. COST IS INCLUDED IN THE BID ITEM "SLOPE PAVING CONCRETE".



SECTION THRU ABUT

(SHOWING FALL PROTECTION - FOR EYE BOLT DETAILS AND LOCATIONS, SEE SHEET 8)



STEEL 'HP' SHAPE

'HP' WELD DETAIL

PILE SPLICE DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-130

DRAWN BY GLM | PLANS CK'D. KES

SOUTH ABUTMENT DETAILS

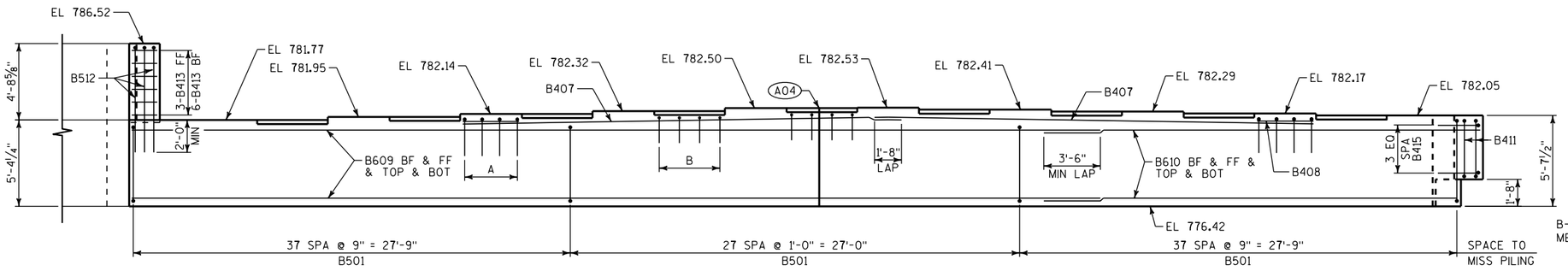
SHEET 6 OF 23

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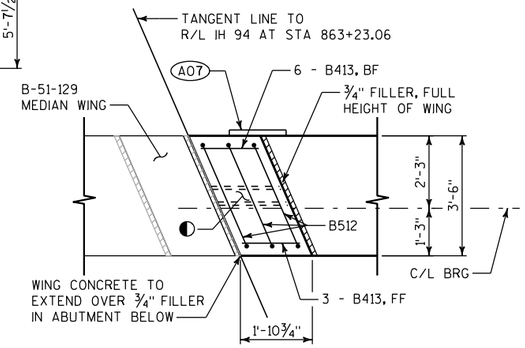


ELEVATION

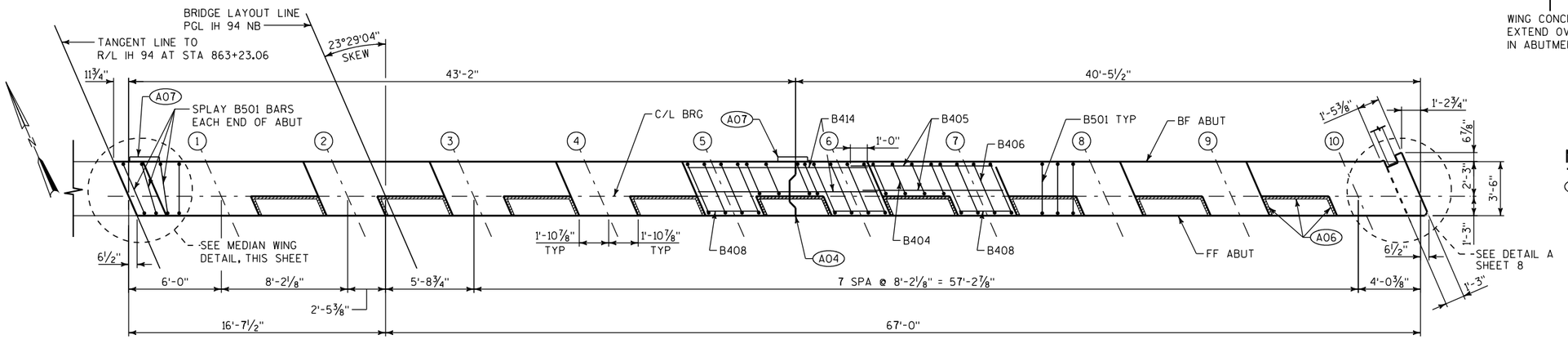
(LOOKING NORTH)

A - 3 SPA @ 1'-1" = 3'-3", ADD'T B406 SEAT REINF REQ'D @ GIRDERS 3 THRU 9

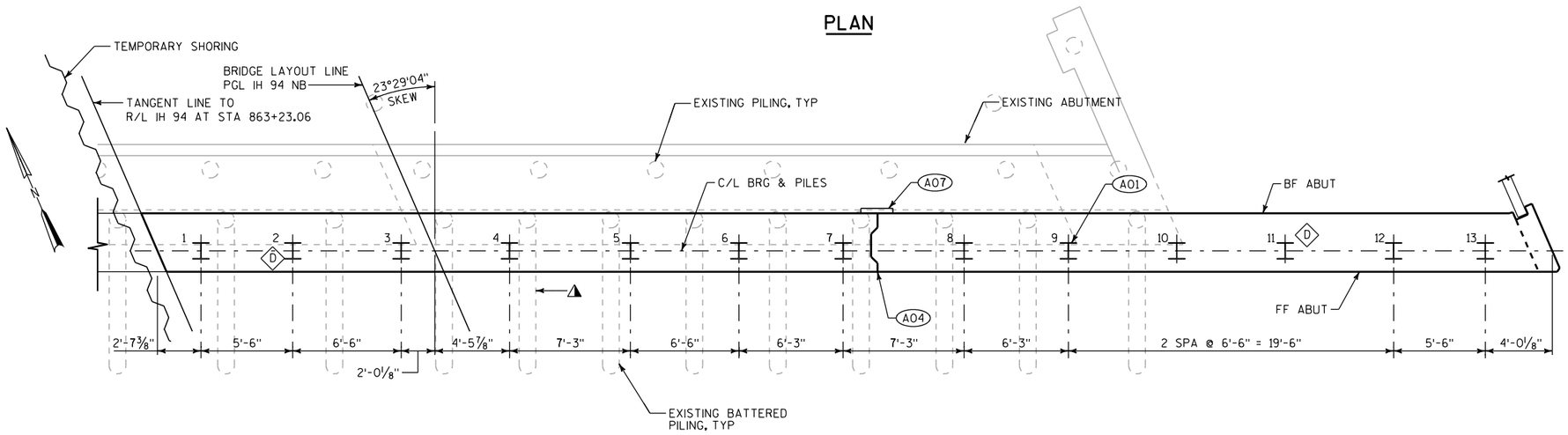
B - 3 SPA @ 1'-3" = 3'-9", B404 BETWEEN GIRDER SEATS REQ'D @ GIRDERS 3 THRU 9



MEDIAN WING DETAIL



PLAN



PILE PLAN

NOTES:

(A01) HP12X53 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 185 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD.
ESTIMATED PILE LENGTH = 90 FEET

NOTE - PROPOSED PILES MAY BE MOVED UP TO 8" ALONG C/L BRG & PILES TO AVOID CONFLICTS WITH EXISTING PILES. IF GREATER ADJUSTMENT IS NECESSARY, CONTACT THE ENGINEER FOR ADDITIONAL INSTRUCTIONS BEFORE PROCEEDING.

LOCATION OF EXISTING PILES IS SHOWN BASED ON AS-BUILT INFORMATION ONLY. FIELD VERIFY PILE LOCATIONS IMMEDIATELY AFTER EXPOSURE AND NOTIFY THE ENGINEER OF ANY DEVIATIONS NOTED.

◇D DYNAMIC PILE LOAD TESTING.

(A04) KEYED CONST JOINT FORMED BY BEVELED 2" x 8".

(A06) ¾" CORK FILLER UP VERT BEAM SEAT FACES, TYP.

(A07) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

▲ CUT OFF PILING IN EXISTING FOOTING THAT IS IN THE FOOTPRINT OF THE PROPOSED MSE WALL 1'-0" BELOW BOTTOM OF PROPOSED MSE WALL LEVELING PAD. DO NOT INCORPORATE EXISTING PILING INTO PROPOSED ABUTMENT.

◐ CONSTRUCTION JOINT FORMED BY BEVELED 2" X 6" KEYWAY WITH MEMBRANE ON BACKFACE

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NORTH ABUTMENT

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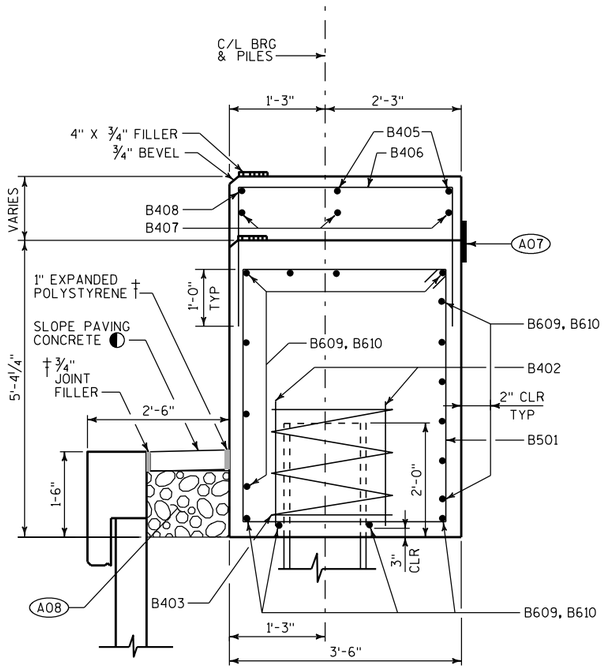
8

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LEGEND

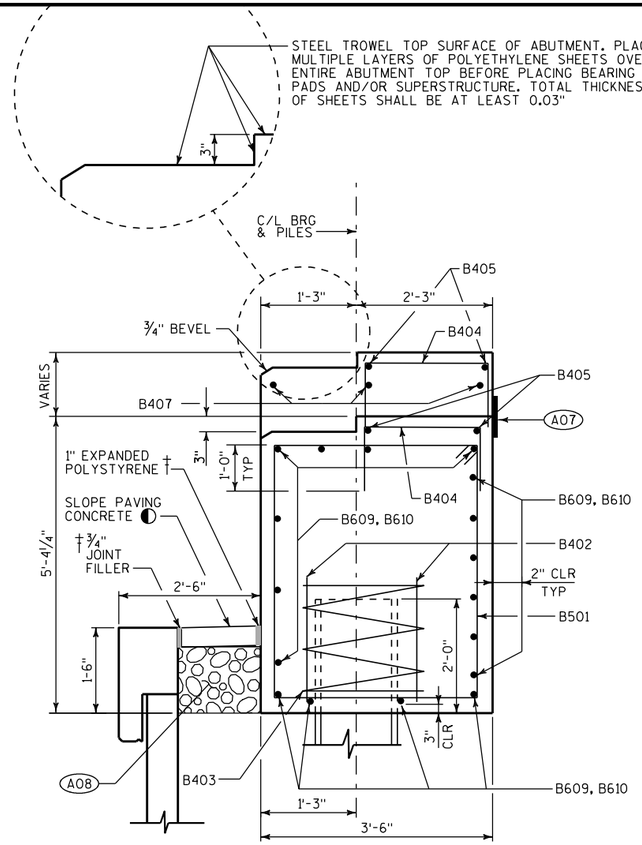
† SEAL ALL EXPOSED HORIZ & VERT SURFACES OF FILLER WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.

◐ SLOPE CONCRETE PAD DOWN 3/4" FROM FRONT FACE OF ABUTMENT TO BACK OF CONCRETE COPING



SECTION THRU BODY

(AT GIRDER SEATS)

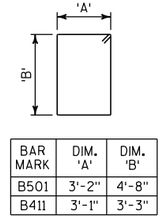


SECTION THRU BODY

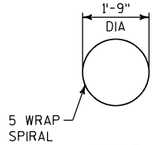
(BETWEEN GIRDER SEATS)

BILL OF BARS

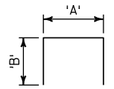
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B501	E	104	16'-3"	X		ABUT BODY STIRRUPS
B402	E	26	2'-3"			ABUT PILES - 2 PER PILE
B403	E	13	28'-0"	X		ABUT PILES - 1 PER PILE
B404	E	24	4'-5"	X		ABUT BODY TOP - BETWEEN BEAM SEATS
B405	E	16	9'-2"			ABUT BODY TOP - HORIZ BETWEEN BEAM SEATS
B406	E	28	7'-7"	X		ABUT BODY TOP - UNDER GIRDERS 3 - 9
B407	E	6	27'-2"			ABUT BODY TOP - HORIZ UNDER GIRDERS 3 - 9
B408	E	7	3'-6"			ABUT BODY TOP - HORIZ UNDER GIRDERS 3 - 9
B609	E	17	60'-0"			ABUT BODY - HORIZ
B610	E	17	26'-7"			ABUT BODY - HORIZ
B411	E	2	13'-2"	X		ABUT BODY END STIRRUPS
B512	E	3	16'-4"	X		MEDIAN WING - VERTICAL TIE
B413	E	9	1'-6"			MEDIAN WING - HORIZONTAL
B414	E	2	11'-7"			ABUT BODY TOP - BETWEEN GIRDERS 5 & 6
B415	E	4	7'-3"	X		ABUT BODY - HORIZ ENDS
B416	E	4	7'-3"	X		ABUT BODY END - HORIZ TIE
B417	E	7	2'-5"	X		ABUT BODY END - HORIZ TIE
B418	E	1	2'-11"			ABUT BODY END - VERT



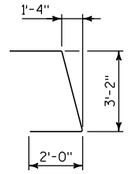
BAR MARK	DIM. 'A'	DIM. 'B'
B501	3'-2"	4'-8"
B411	3'-1"	3'-3"



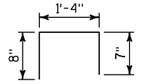
B403



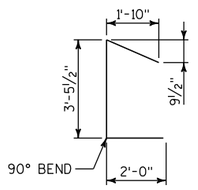
BAR MARK	DIM. 'A'	DIM. 'B'
B404	2'-1"	1'-3"
B406	3'-5"	2'-2"
B512	3'-5"	6'-7"



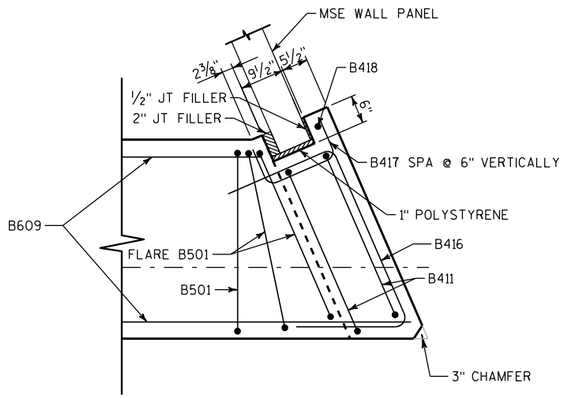
B415



B417



B416

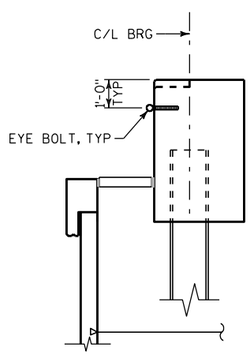


DETAIL A

NOTES:

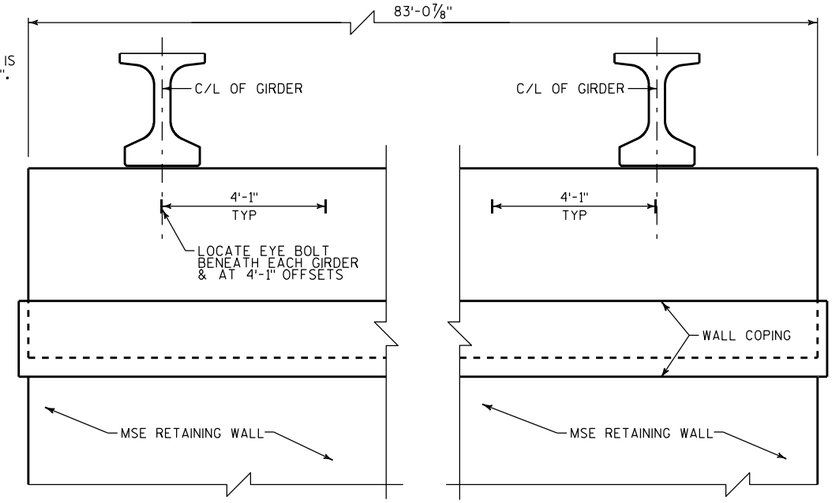
(A07) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A08) SIZE 2 COARSE AGGREGATE OR MSE BACKFILL. COST IS INCLUDED IN THE BID ITEM "SLOPE PAVING CONCRETE".



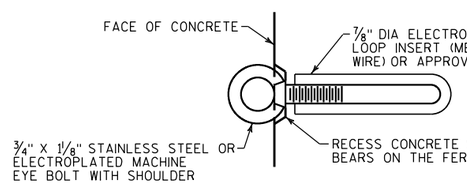
SECTION THRU ABUT

(SHOWING FALL PROTECTION - LOOKING WEST)



ABUTMENT ELEVATION

(SHOWING FALL PROTECTION - LOOKING NORTH)



EYE BOLT DETAIL

EYE BOLTS AND FERRULE LOOP INSERTS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES". MINIMUM STRENGTH OF EYE BOLT AND LOOP INSERT IS 3500 LB.

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NORTH ABUTMENT DETAILS

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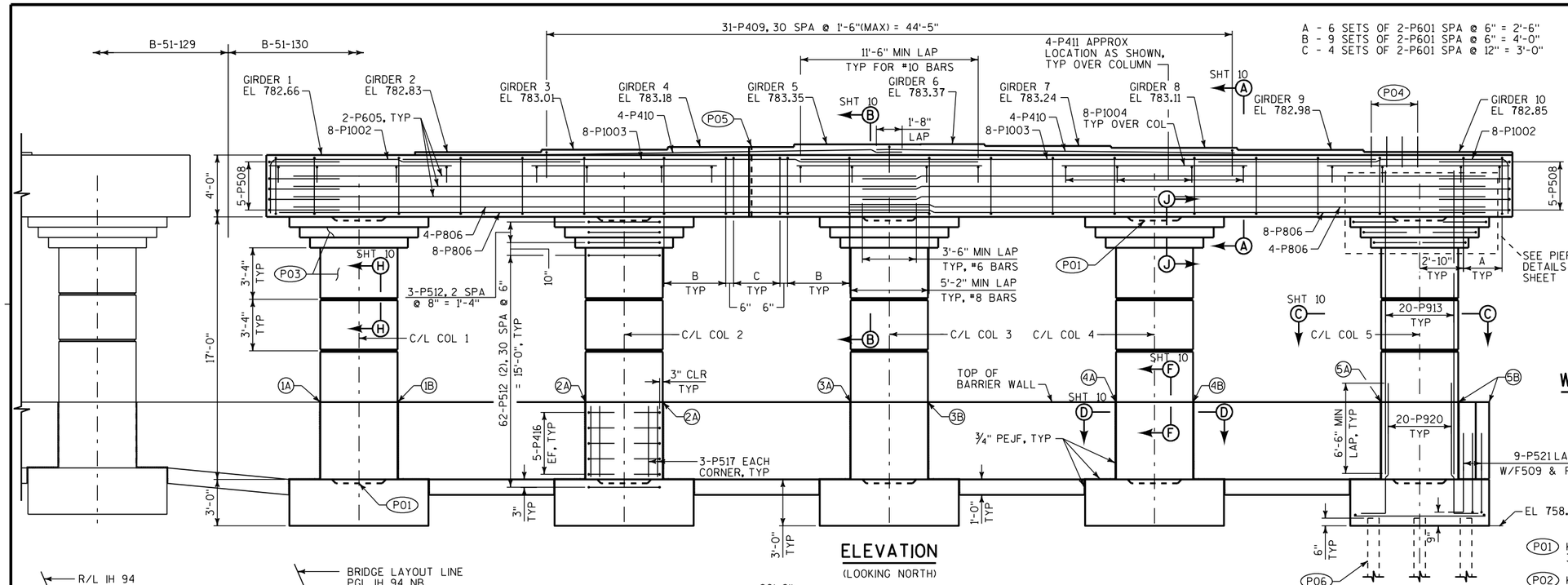
524

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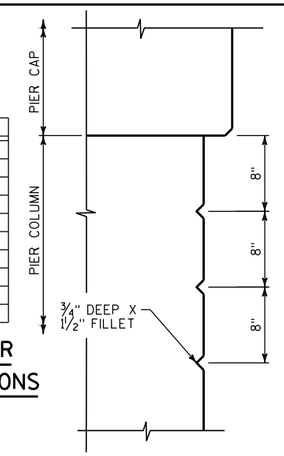


ELEVATION

(LOOKING NORTH)

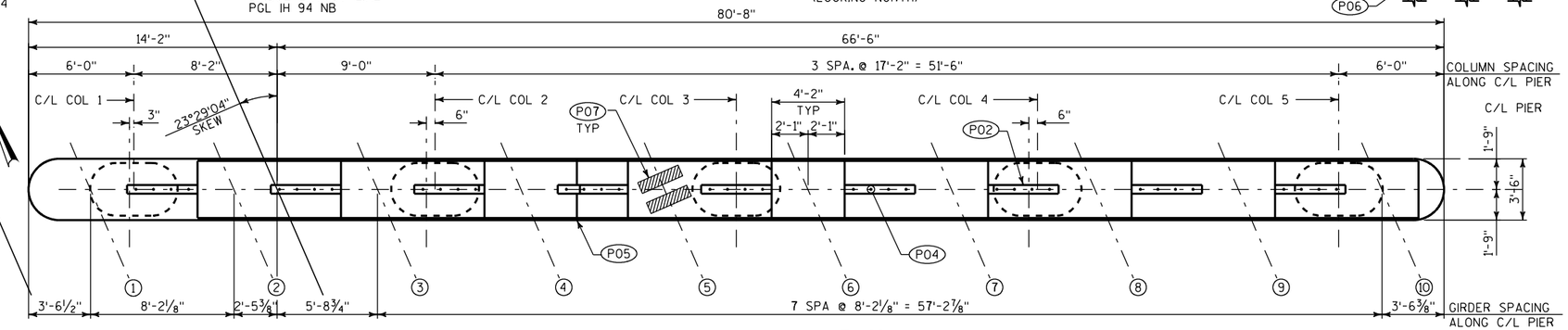
POINT	ELEVATION
1A	766.58
1B	766.54
2A	766.44
2B	766.40
3A	766.28
3B	766.25
4A	766.15
4B	766.10
5A	766.00
5B	765.96

PIER BARRIER WALL ELEVATIONS

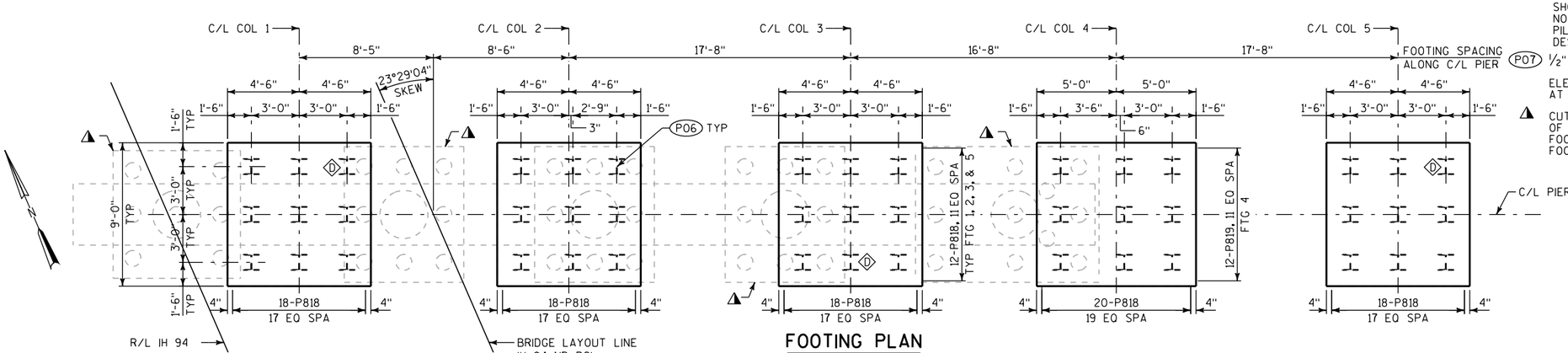


SECTION J-J

(FOR FILLET DIMENSIONS, SEE SECTION F-F)



PLAN



FOOTING PLAN

NOTES

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 3"x1'-2"x3'-6", TYPICAL TOP AND BOTTOM OF ALL COLUMNS.

(P02) KEYED CONSTRUCTION JOINT FORMED BY A SURFACED BEVELED 2"x6" BETWEEN BEAM SEATS.

(P03) FOR CONCRETE STAINING DETAILS, SEE SHEET 21.

(P04) P507 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE)

(P05) VERT. CONST. JOINT FORMED BY SURFACED BEVELED 2" x 6" x 2'-0" KEYWAY

(P06) HP12X53 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 160 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD. ESTIMATED PILE LENGTH = 65 FEET.

NOTE - PROPOSED PILES MAY BE MOVED UP TO 6" EACH WAY TO AVOID CONFLICTS WITH EXISTING PILES. IF 6" ADJUSTMENT IS NOT SUFFICIENT, EXISTING PILES MAY BE EXTRACTED AND THE HOLE THEN FILLED WITH SAND. REMOVAL OF EXISTING PILES AND PLACEMENT OF SAND IS INCLUDED IN THE PAY ITEM "REMOVING OLD STRUCTURE STA 862+31.0".

LOATION OF EXISTING FOOTINGS IS SHOWN BASED ON AS-BUILT INFORMATION ONLY. THE PILE LOCATIONS AND THE NUMBER OF PILES PER FOOTING IS UNKNOWN AND SHOULD BE FIELD VERIFIED IMMEDIATELY AFTER EXPOSURE. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE ASSUMED PILE LAYOUT. THE PILE LAYOUT SHOWN IS BASED ON SIMILAR DESIGNS FROM THAT ERA OF CONSTRUCTION.

(P07) ½" THICK ELASTOMERIC BEARING PAD. SEE SHEET 18 FOR DETAILS.

ELEVATIONS ARE GIVEN AT THE TOP OF THE CONCRETE AT THE INTERSECTION OF THE C/L GIRDER AND C/L PIER.

△ CUT OFF PILING IN EXISTING FOOTING THAT IS IN THE FOOTPRINT OF THE PROPOSED FOOTING 6" BELOW BOTTOM OF PROPOSED FOOTING. DO NOT INCORPORATE EXISTING PILING INTO PROPOSED FOOTING.

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STRUCTURE B-51-130

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PIER

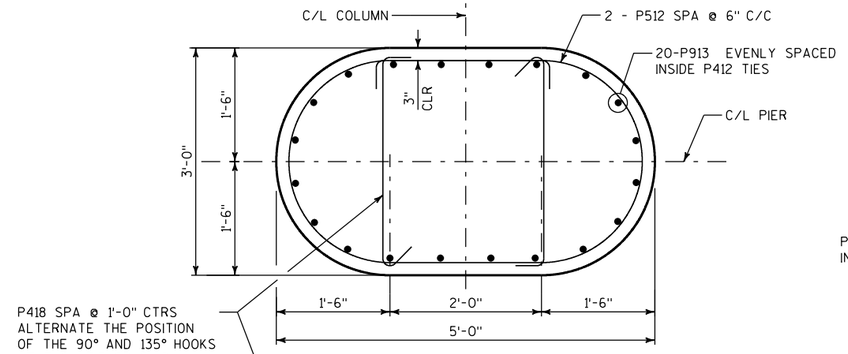
SHEET 9 OF 23

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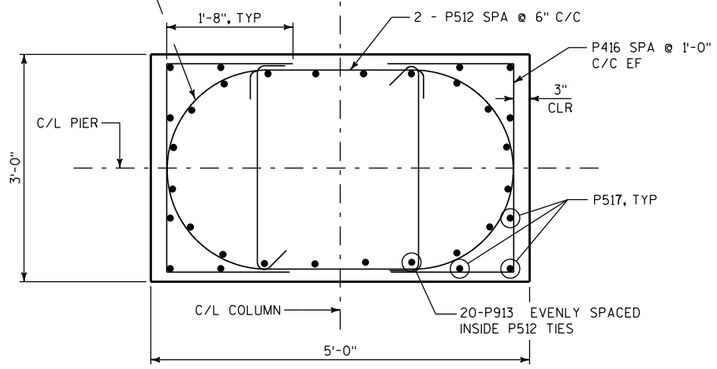
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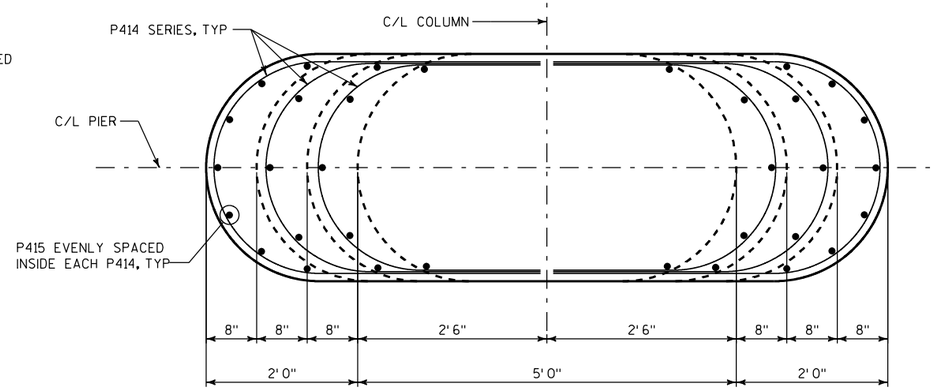
SECTION C-C

TYPICAL COLUMN SECTION ABOVE TOP OF FILLER WALL



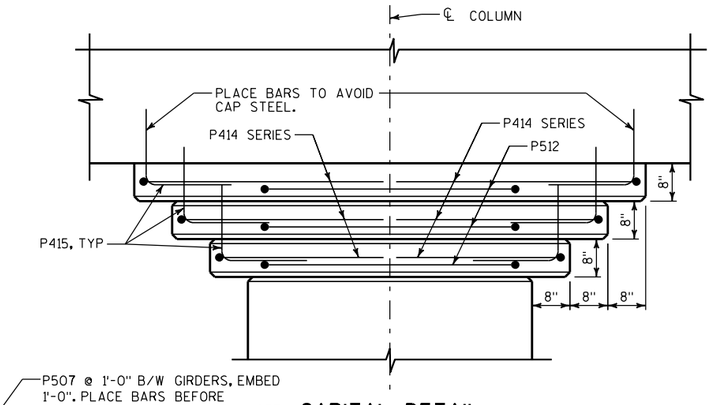
SECTION D-D

TYPICAL COLUMN SECTION BELOW TOP OF FILLER WALL



SECTION THRU COLUMN

COLUMN DETAILS AT CAPITALS
COLUMN STEEL NOT SHOWN FOR CLARITY

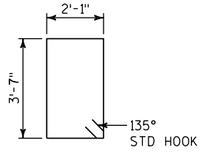


CAPITAL DETAIL

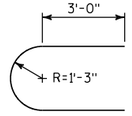
BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
P601	E	200	12'-2"	X		PIER CAP STIRRUPS
P1002	E	16	23'-1"	X		PIER CAP TOP
P1003	E	16	37'-7"			PIER CAP TOP
P1004	E	40	12'-0"			PIER CAP TOP ABOVE COLUMNS
P605	E	12	40'-4"			PIER CAP SIDES
P806	E	24	41'-2"			PIER CAP BOTTOM
P507	E	36	2'-0"			DIAPHRAGM DOWELS
P508	E	10	9'-11"	X		PIER CAP ENDS
P409	E	31	6'-2"	X		CAP BEAM SEAT
P410	E	8	23'-5"			CAP BEAM SEAT
P411	E	20	4'-4"	X		PIER CAP ABOVE COLUMNS
P512	E	325	15'-3"	X		COLUMN STIRRUPS
P913	E	100	19'-10"			COLUMN - VERTICAL
P414	E	30	8'-7"	X	⚠	COLUMN CAPITAL - HORIZONTAL
P415	E	170	2'-11"	X		COLUMN CAPITAL - VERTICAL
P416	E	50	5'-8"	X		COLUMN BOTTOM
P517	E	60	4'-0"			COLUMN BOTTOM
P818		140	8'-6"			FOOTING - HORIZONTAL
P819		12	9'-6"			FOOTING - HORIZONTAL
P920	E	100	10'-3"	X		FOOTING
P521	E	9	6'-1"	X		OUTSIDE COLUMN FOOTING
P422	E	150	3'-2"	X		COLUMN - HORIZONTAL TIE

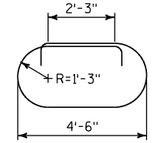
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



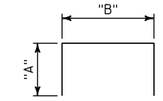
P601



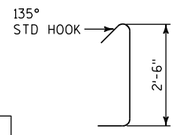
P508



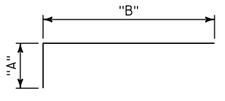
P512



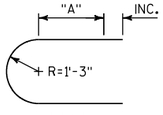
MARK	"A"	"B"
P409	1'-9"	2'-10"
P416	1'-8"	2'-6"
P411	8"	3'-2"



P422



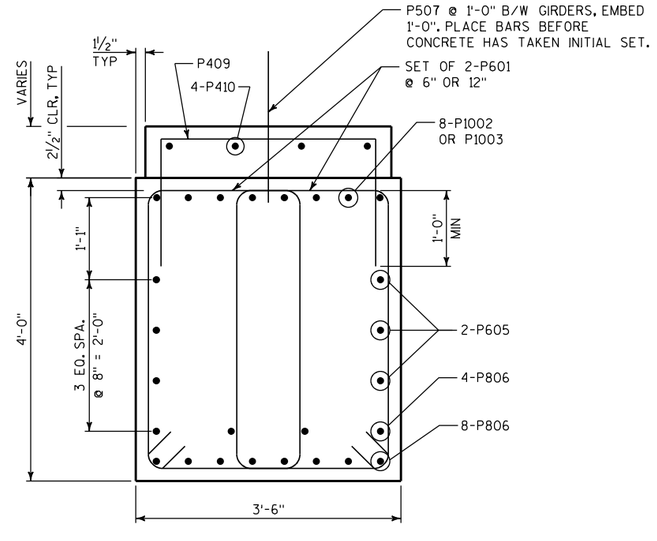
MARK	"A"	"B"
P1002	3'-7"	19'-10"
P415	1'-6"	1'-6"
P521	10"	5'-4"
P920	1'-7"	8'-11"



P414

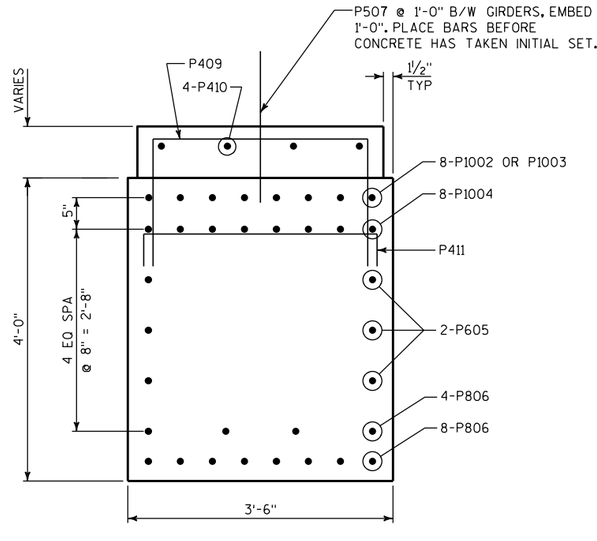
MARK	NO. REQ'D	"A"	INC.	LENGTH
P414	10 SERIES OF 3	1'-8" TO 3'-0"	8"	7'-3" TO 9'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY



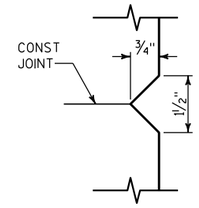
SECTION A-A

PIER CAP SECTION MIDDLE SPAN B/W COLUMNS

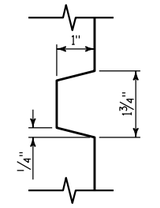


SECTION B-B

PIER CAP SECTION OVER COLUMN



SECTION F-F



SECTION H-H

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-130

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PIER DETAILS

SHEET 10 OF 23

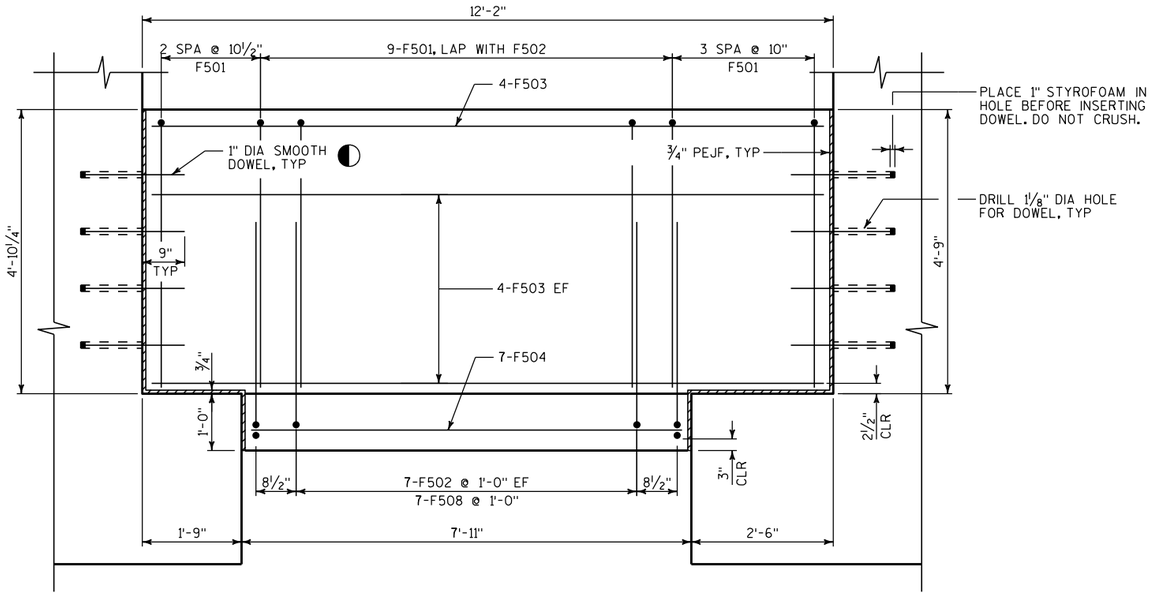
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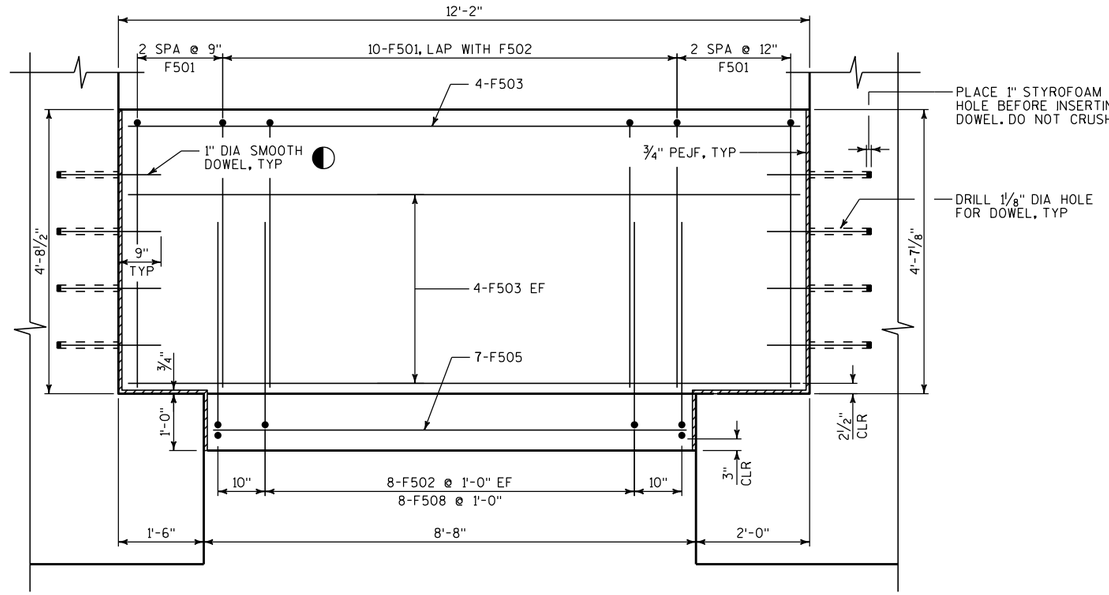
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STATE PROJECT NUMBER
1033-02-72



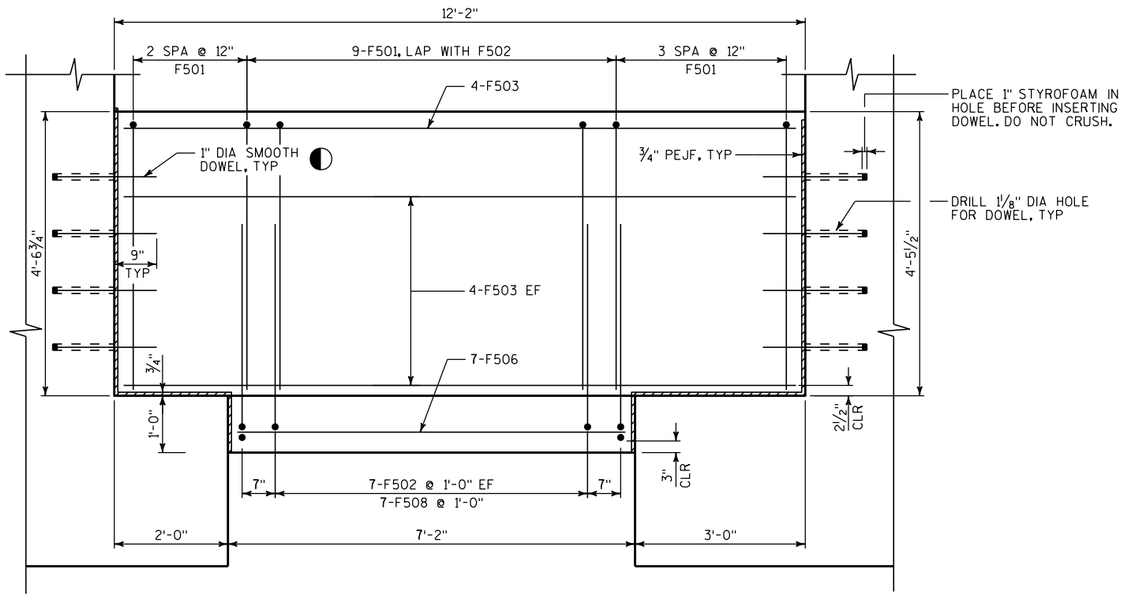
ELEVATION OF BARRIER WALL

B/W FTG 1 & FTG 2



ELEVATION OF BARRIER WALL

B/W FTG 2 & FTG 3



ELEVATION OF BARRIER WALL

B/W FTG 3 & FTG 4

LEGEND

◐ 1" DIA SMOOTH EPOXY COATED DOWELS. DOWELS SHALL BE COATED WITH A DEBONDING SURFACE TREATMENT OVER ½ DOWEL LENGTH. DOWELS AND DRILLED HOLES ARE INCLUDED IN THE BID ITEM "BAR STEEL REINFORCEMENT HS COATED BRIDGES"

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PIER BARRIER WALL DETAILS 1

SHEET 11 OF 23

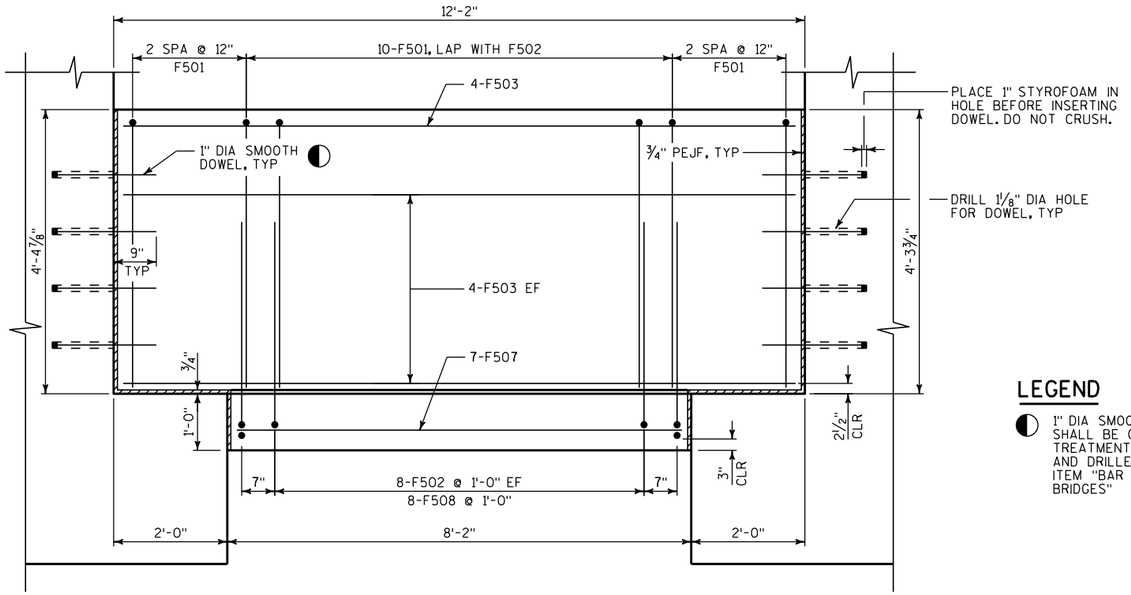
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STATE PROJECT NUMBER
1033-02-72



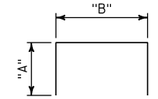
ELEVATION OF TYPICAL BARRIER WALL
B/W FTG 4 & FTG 5

LEGEND

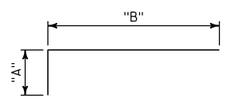
◐ 1" DIA SMOOTH EPOXY COATED DOWELS. DOWELS SHALL BE COATED WITH A DEBONDING SURFACE TREATMENT OVER ½ DOWEL LENGTH. DOWELS AND DRILLED HOLES ARE INCLUDED IN THE BID ITEM "BAR STEEL REINFORCEMENT HS COATED BRIDGES"

BILL OF BARS

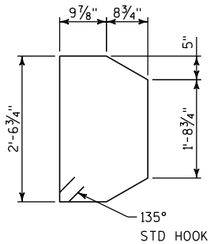
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
F501	E	56	10'-5"	X		BARRIER WALL - VERTICAL TIE
F502	E	38	5'-0"	X		BARRIER WALL - VERTICAL
F503	E	48	11'-10"			BARRIER WALL - HORIZONTAL
F504		7	7'-5"			BARRIER WALL - FOOTING
F505		7	8'-2"			BARRIER WALL - FOOTING
F506		7	6'-8"			BARRIER WALL - FOOTING
F507		7	7'-8"			BARRIER WALL - FOOTING
F508		38	7'-6"			BARRIER WALL - FOOTING
F509	E	5	8'-2"	X		BARRIER WALL - HORIZONTAL STIRRUP
F510	E	7	4'-7"	X		BARRIER WALL - VERTICAL
F511	E	1	10'-2"	X		BARRIER WALL - VERTICAL TIE
F512	E	5	8'-0"	X		BARRIER WALL - VERTICAL TIE



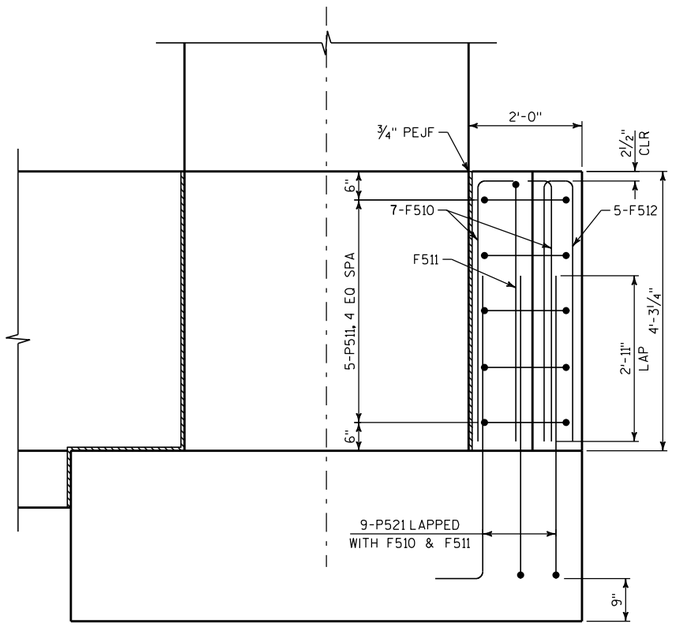
MARK	"A"	"B"
F501	4'-0"	2'-8"
F511	3'-10"	2'-8"
F512	3'-10"	6"



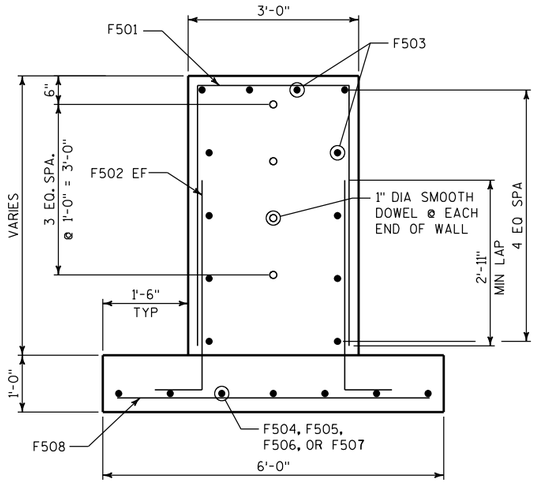
MARK	"A"	"B"
F502	9"	4'-3"
F510	9"	3'-10"



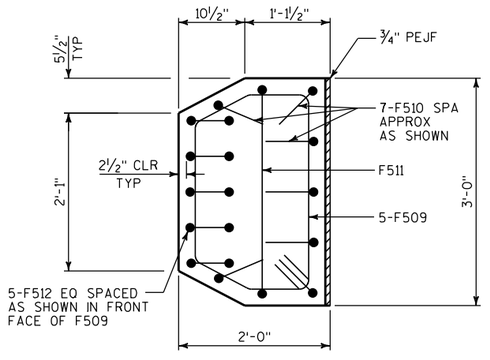
F509



ELEVATION OF BARRIER WALL AT END OF PIER



SECTION OF BARRIER WALL



PLAN OF BARRIER WALL AT END OF PIER

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-130

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PIER BARRIER WALL DETAILS 2

SHEET 12 OF 23

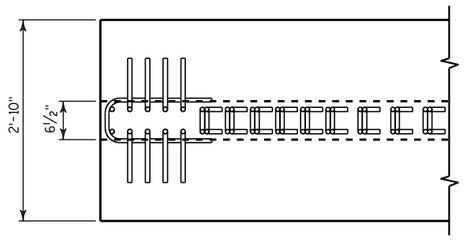
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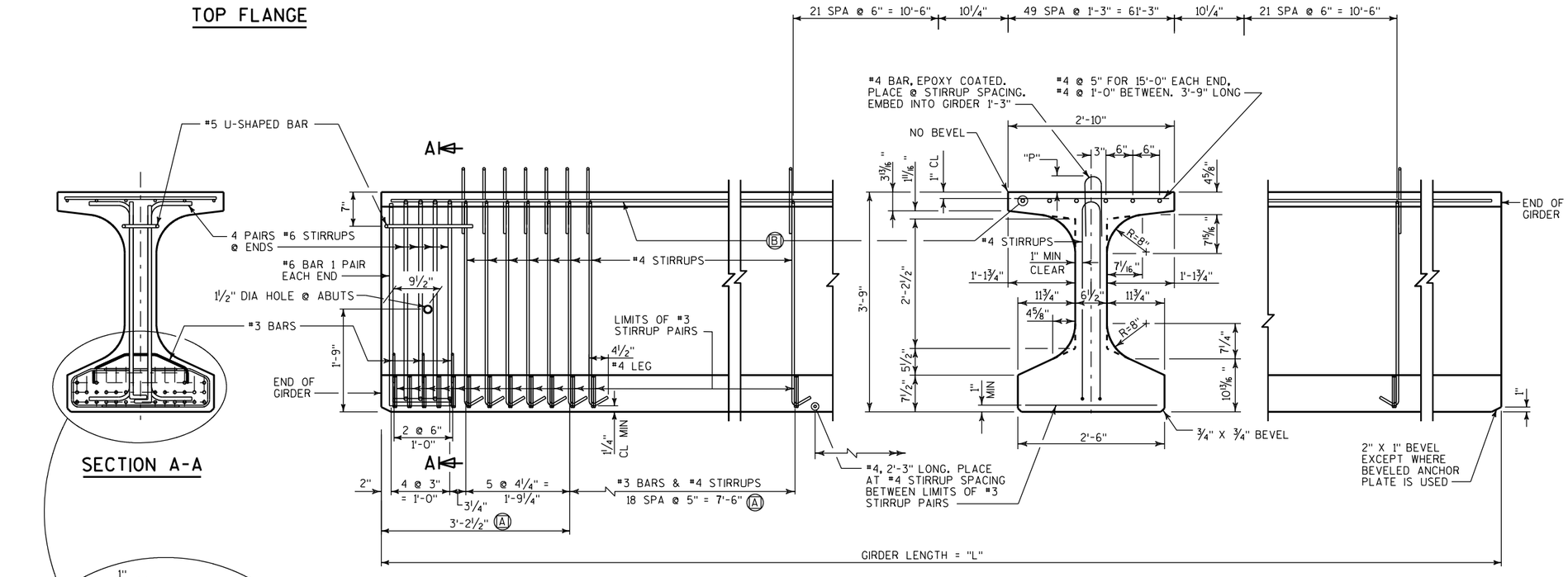
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TOP FLANGE

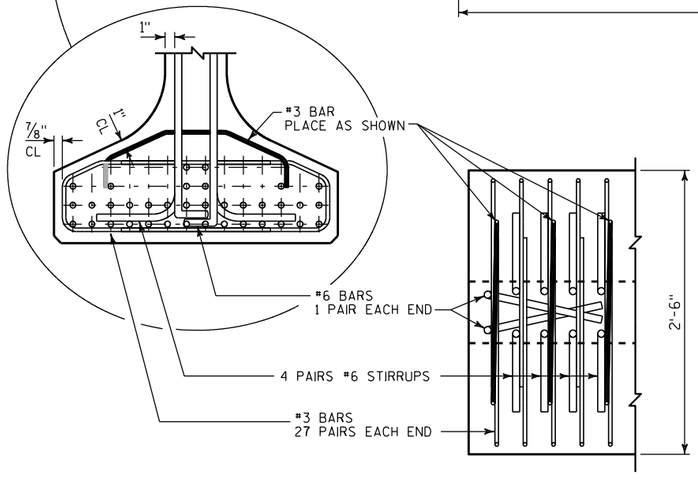


SECTION A-A

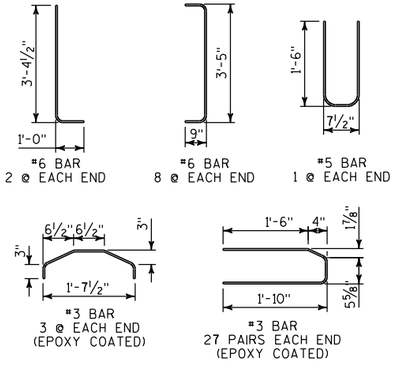
SIDE VIEW & TYP SECTION IN SPAN

(A) DETAIL TYP AT EACH END

(B) 6 #4 BARS, FULL LENGTH, MIN LAP = 1'-8"



BOTTOM FLANGE



GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY FOR BONDING TO THE SLAB, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

PRESTRESSING STRANDS SHALL BE 0.6" DIA - 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI AND SHALL BE FLUSH WITH THE ENDS OF THE GIRDER.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS, SEE "STEEL DIAPHRAGM" SHEET.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, THE FOLLOWING OPTION IS AVAILABLE:

1. USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A497.

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	CONC. STRGTH. f'c (P.S.I.)	"P"	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
1	105'-4½"	⅞"	1⅜"	1⅞"	2⅛"	2¼"	8000	8"	0.6	36	6800	39	13½	16½	5
2	105'-4½"	⅞"	1⅜"	1⅞"	2⅛"	2¼"	8000	8"	0.6	36	6800	39	13½	16½	5

SEE 45W" PRESTRESSED GIRDER DETAILS SHEET FOR DRAPED STRAND PROFILE AND DEAD LOAD DEFLECTION DIAGRAM.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-130

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45W" PRESTRESSED GIRDER

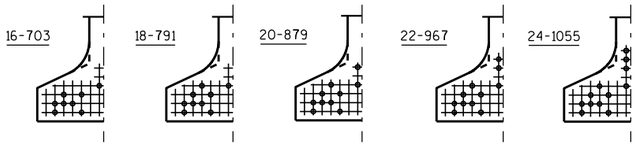
SHEET 13 OF 23

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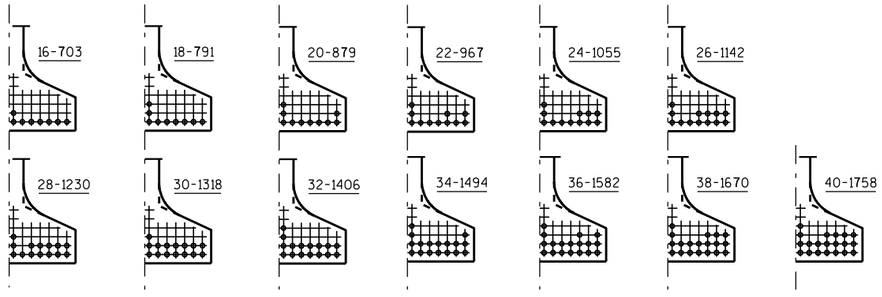
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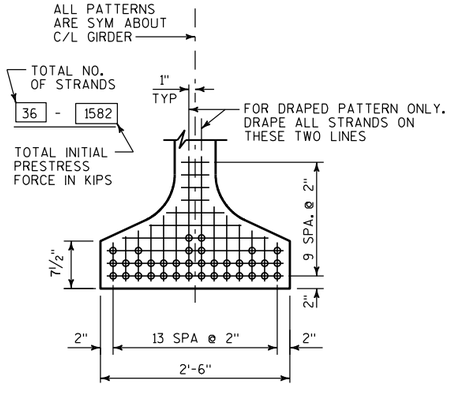
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6" DIA STRANDS



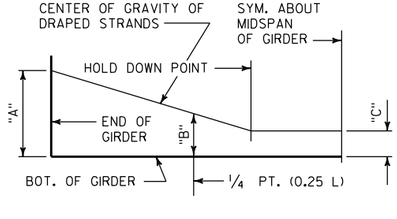
ARRANGEMENT AT C/L SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6" DIA STRANDS



TYPICAL STRAND PATTERN

0.6" DIA STRANDS



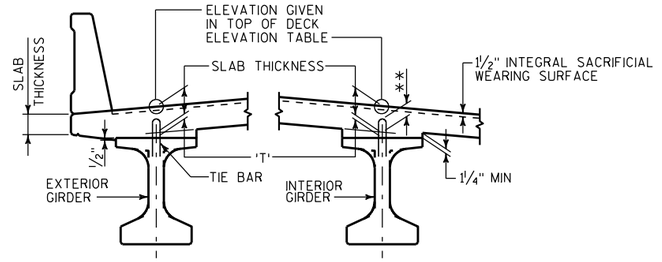
DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	3¼"
2	3¼"

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



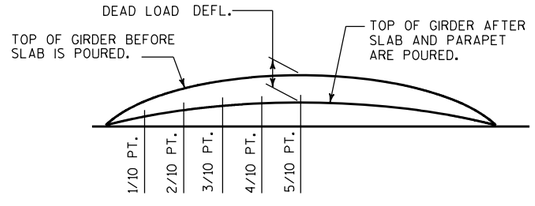
SLAB HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEVATION OF TOP OF GIRDERS AT C/L OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEVATION AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- SLAB THICKNESS
= HAUNCH HEIGHT 'T'



DEAD LOAD DEFLECTION DIAGRAM

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STATE OF WISCONSIN
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STRUCTURE B-51-130

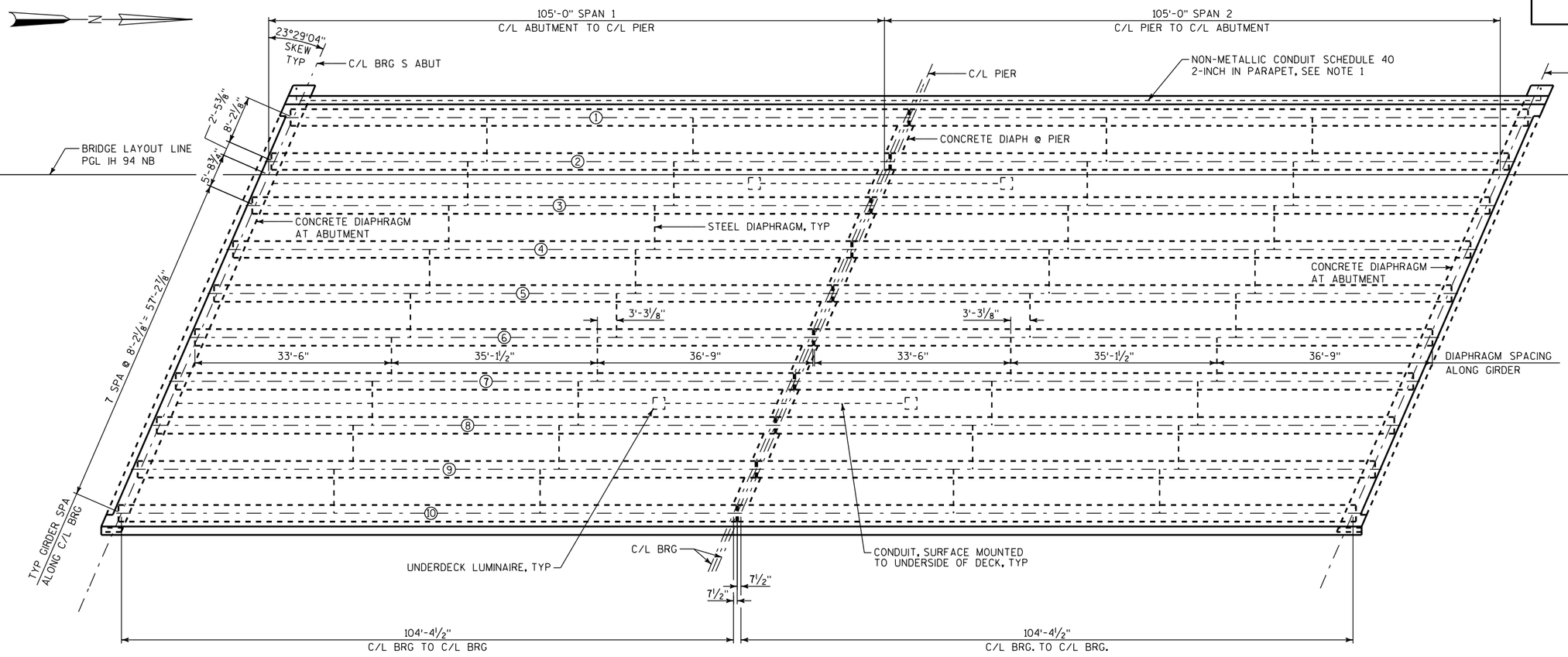
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45W" PRESTRESSED GIRDER DETAILS

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FRAMING PLAN

NOTES

1. STUB OUT NON-METALLIC CONDUIT, SCHEDULE 40 2-INCH FROM BACK SIDE OF WEST PARAPET, 1'-0" FROM EACH END OF PARAPET. PROVIDE REMOVABLE CONDUIT CAP.
2. PROVIDE CAST IN THREADED INSERTS IN UNDERSIDE OF BRIDGE DECK FOR ATTACHMENT OF UNDERDECK LIGHTING LUMINAIRES AND CONDUITS. CONDUITS NOT EMBEDDED IN CONCRETE, LUMINAIRES AND DECK INSERTS ARE INCLUDED IN THE BID ITEM "UNDERDECK LIGHTING SPECIAL (STH 20). SEE LIGHTING PLANS AND SPECIAL PROVISIONS.

TOP OF DECK ELEVATIONS

	S. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	PIER	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	N. ABUT.
FLOW LINE	788.01	787.96	787.91	787.86	787.81	787.75	787.69	787.63	787.56	787.49	787.42	787.34	787.27	787.18	787.10	787.01	786.92	786.83	786.73	786.63	786.53
GIRDER 1	788.06	788.01	787.96	787.91	787.86	787.80	787.74	787.68	787.61	787.54	787.47	787.40	787.32	787.24	787.15	787.07	786.98	786.88	786.79	786.69	786.58
GIRDER 2	788.22	788.18	788.13	788.08	788.03	787.97	787.91	787.85	787.78	787.72	787.65	787.57	787.49	787.41	787.33	787.24	787.15	787.06	786.97	786.87	786.77
GIRDER 3	788.38	788.34	788.29	788.24	788.19	788.14	788.08	788.02	787.95	787.89	787.82	787.74	787.67	787.59	787.51	787.42	787.33	787.24	787.15	787.05	786.95
GIRDER 4	788.54	788.50	788.46	788.41	788.36	788.31	788.25	788.19	788.12	788.06	787.99	787.92	787.84	787.76	787.68	787.60	787.51	787.42	787.33	787.23	787.13
GIRDER 5	788.71	788.67	788.62	788.58	788.53	788.47	788.42	788.36	788.29	788.23	788.16	788.09	788.02	787.94	787.86	787.77	787.69	787.60	787.50	787.41	787.31
CROWN	788.79	788.75	788.70	788.66	788.61	788.56	788.50	788.44	788.38	788.31	788.25	788.18	788.10	788.03	787.95	787.86	787.78	787.69	787.59	787.50	787.40
GIRDER 6	788.72	788.68	788.64	788.59	788.54	788.49	788.43	788.38	788.31	788.25	788.18	788.11	788.04	787.96	787.88	787.80	787.71	787.63	787.53	787.44	787.34
GIRDER 7	788.58	788.54	788.50	788.45	788.41	788.36	788.30	788.24	788.18	788.12	788.05	787.98	787.91	787.84	787.76	787.68	787.59	787.50	787.41	787.32	787.22
GIRDER 8	788.44	788.40	788.36	788.32	788.27	788.22	788.17	788.11	788.05	787.99	787.93	787.86	787.78	787.71	787.63	787.55	787.47	787.38	787.29	787.20	787.10
GIRDER 9	788.30	788.27	788.23	788.18	788.14	788.09	788.04	787.98	787.92	787.86	787.80	787.73	787.66	787.58	787.51	787.43	787.34	787.26	787.17	787.08	786.98
GIRDER 10	788.16	788.13	788.09	788.05	788.00	787.95	787.90	787.85	787.79	787.73	787.67	787.60	787.53	787.46	787.38	787.30	787.22	787.14	787.05	786.96	786.86
FLOW LINE	788.12	788.09	788.05	788.01	787.96	787.91	787.86	787.81	787.75	787.69	787.63	787.56	787.49	787.42	787.34	787.26	787.18	787.10	787.01	786.92	786.83

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STATE OF WISCONSIN
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SUPERSTRUCTURE FRAMING PLAN

SHEET 15 OF 23

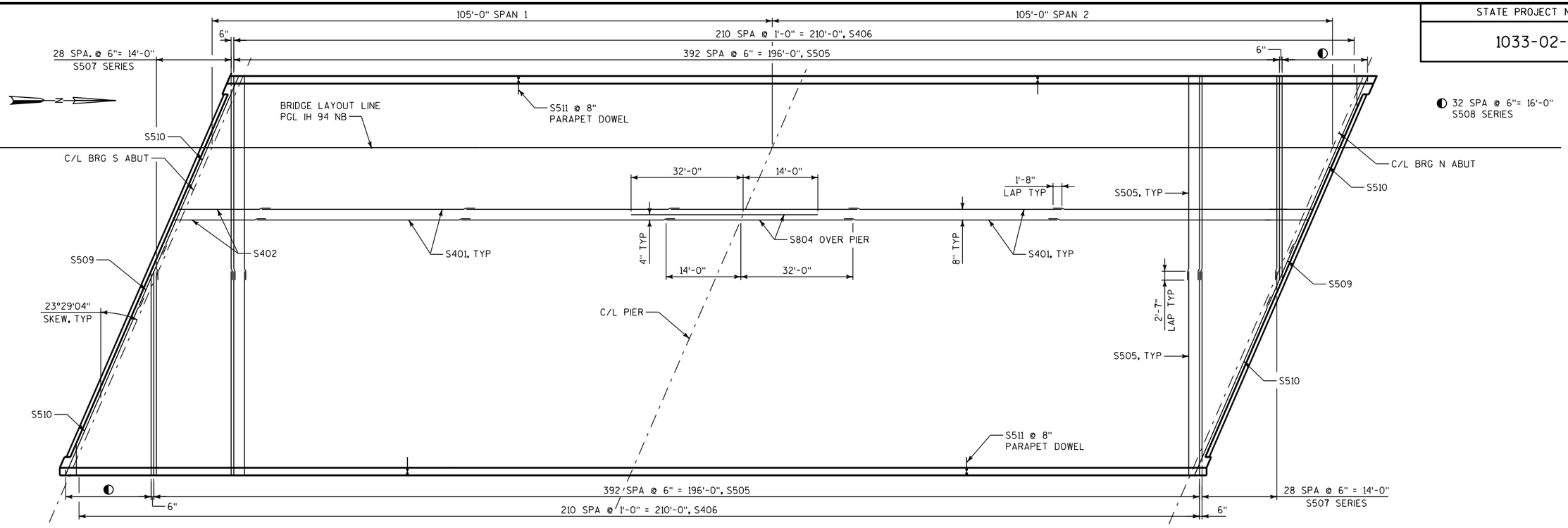
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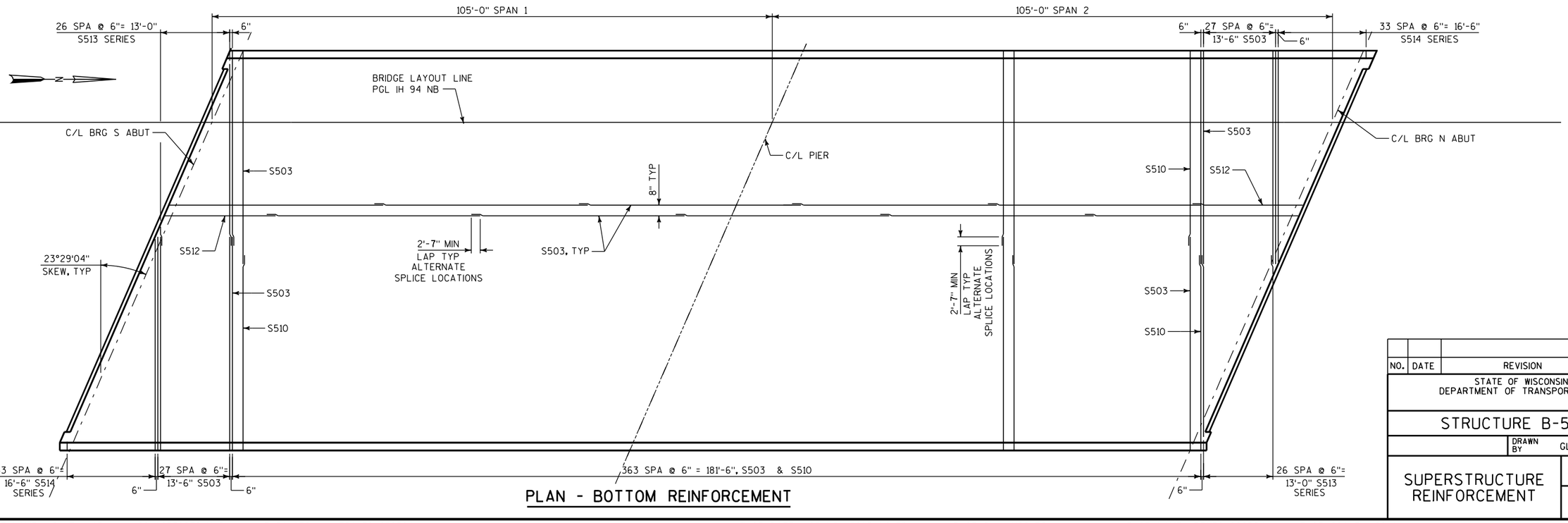
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STATE PROJECT NUMBER
1033-02-72



PLAN - TOP REINFORCEMENT



PLAN - BOTTOM REINFORCEMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-130

DRAWN BY GLM | PLANS CK'D. KES

SUPERSTRUCTURE REINFORCEMENT

SHEET 16 OF 23

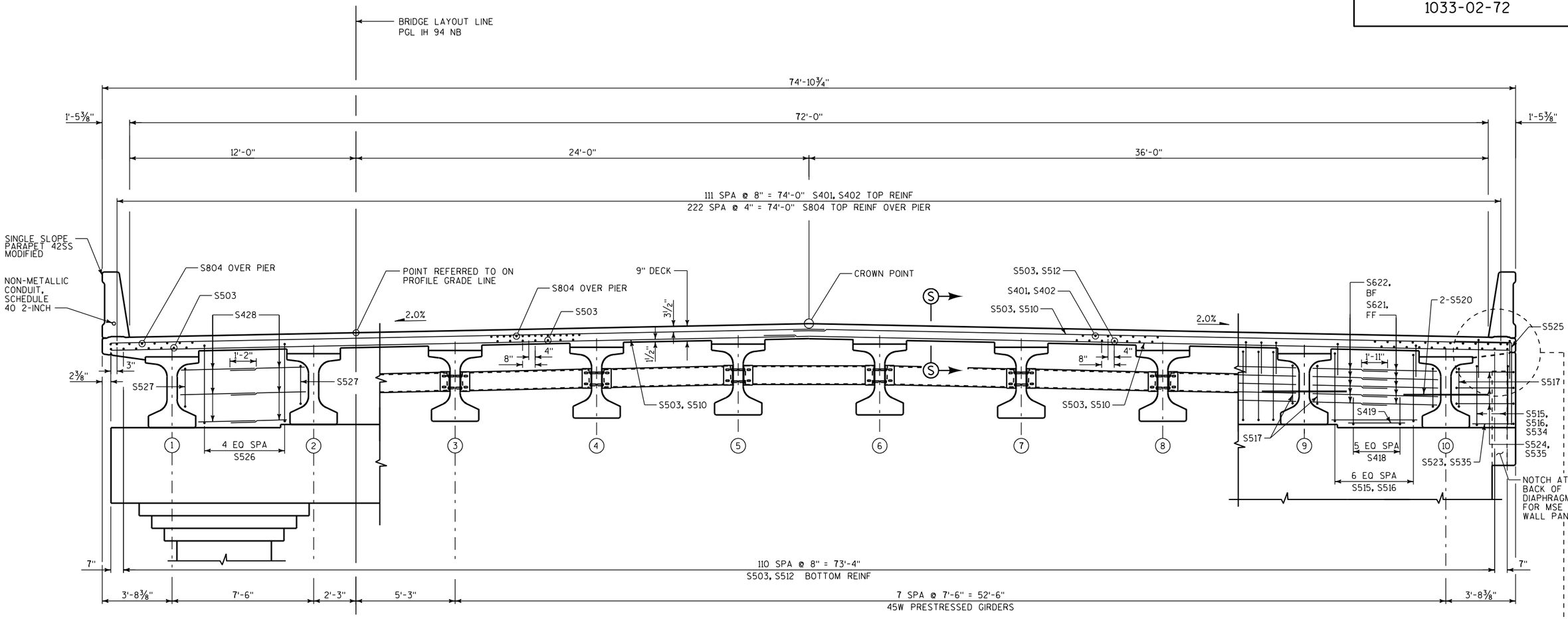
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8

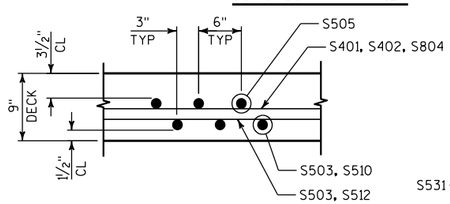
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STATE PROJECT NUMBER
1033-02-72



CONC DIAPH AT PIER

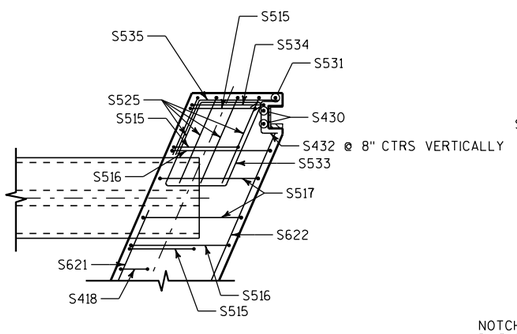


SECTION S-S

IN SPAN DIAPH

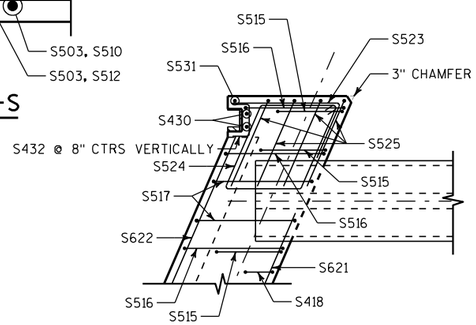
CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



ABUTMENT DIAPHRAGM

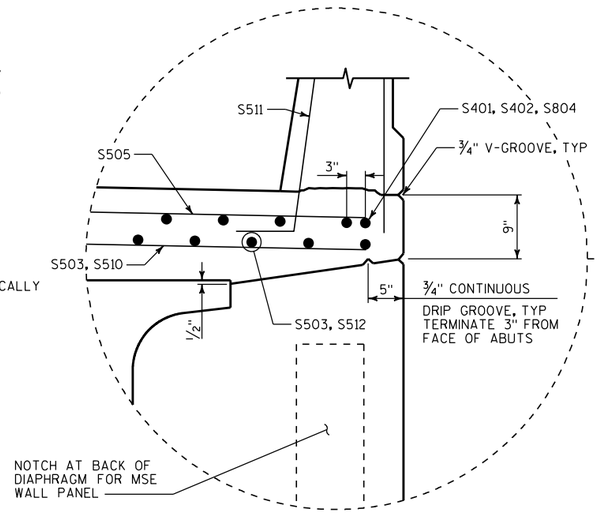
(SOUTHEAST END)



ABUTMENT DIAPHRAGM

(NORTHEAST END)

CONC DIAPH AT ABUT



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-130

DRAWN BY GLM | PLANS CK'D. KES

SUPERSTRUCTURE CROSS SECTION

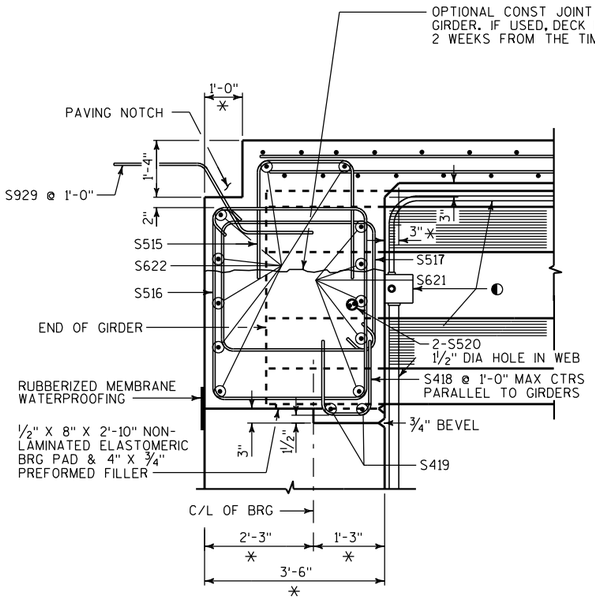
SHEET 17 OF 23

533

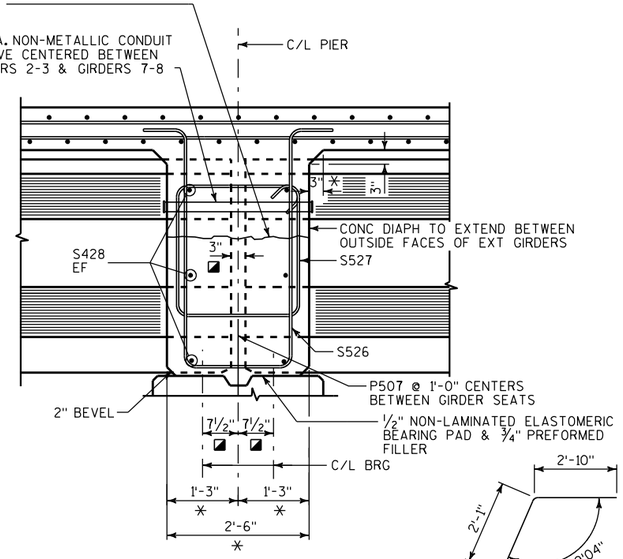
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8

STATE PROJECT NUMBER
1033-02-72



AT ABUTMENT DIAPHRAGM

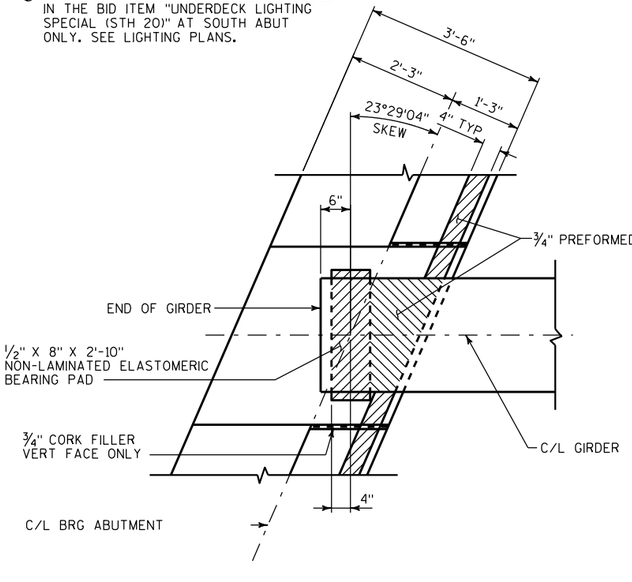


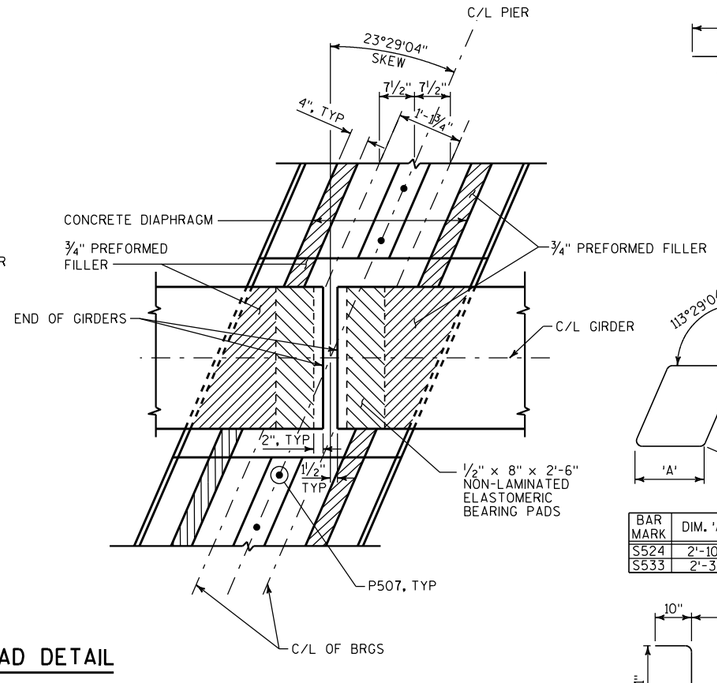
AT PIER DIAPHRAGM

LEGEND

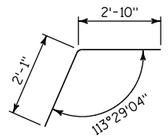
- ◪ DIMENSION PARALLEL TO GIRDER
- ✳ DIMENSION TAKEN NORMAL TO C/L SUBSTRUCTURE UNITS
- ◐ CONDUITS AND JUNCTION BOXES INCLUDED IN THE BID ITEM "UNDERDECK LIGHTING SPECIAL (STH 20)" AT SOUTH ABUT ONLY. SEE LIGHTING PLANS.

PART LONGIT SECTION



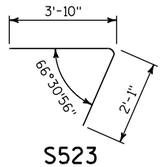


BEARING PAD DETAIL

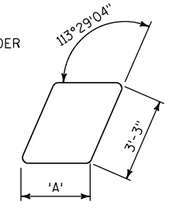


S535

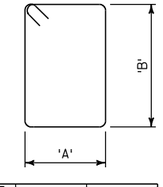
STAINLESS STEEL →



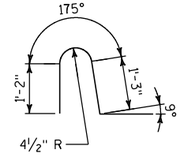
S523



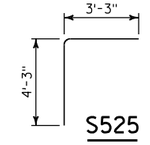
BAR MARK	DIM. 'A'
S524	2'-10"
S533	2'-3"



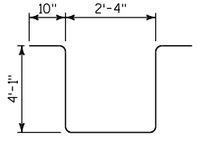
BAR MARK	DIM. 'A'	DIM. 'B'
S516	3'-5"	3'-1"
S517	3'-5"	1'-10"
S527	2'-4"	2'-2"
S534	2'-6"	3'-1"



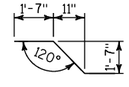
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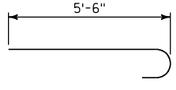
S525



S526



S929



S406

BILL OF BARS

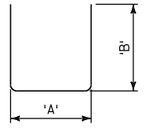
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S401	E	456	40'-0"			SLAB LONGITUDINAL - TOP
S402	E	114	17'-4"			SLAB LONGITUDINAL & TRANSVERSE - BOTTOM
S503	E	985	40'-0"			SLAB LONGITUDINAL - TOP SOUTH END
S804	E	225	46'-0"			SLAB LONGITUDINAL - TOP OVER PIER
S505	E	786	38'-9"			SLAB TRANSVERSE - TOP
S406	E	422	6'-0"	X		SLAB TRANSVERSE - TOP OVERHANG
S507	E	58	20'-2"			SLAB TRANSVERSE - TOP
S508	E	66	19'-2"			SLAB TRANSVERSE - TOP
S509	E	2	11'-10"			SLAB TRANSVERSE - TOP ENDS
S510	E	368	36'-7"			SLAB TRANSVERSE - TOP ENDS & BOTTOM
S511	E	646	4'-5"	X		PARAPET DOWEL
S512	E	113	25'-8"			SLAB LONGITUDINAL - BOTTOM
S513	E	54	19'-7"			SLAB TRANSVERSE - BOTTOM
S514	E	68	20'-8"			SLAB TRANSVERSE - BOTTOM
S515	E	134	7'-1"	X		ABUTMENT DIAPHRAGM VERTICAL
S516	E	134	14'-0"	X		ABUTMENT DIAPHRAGM STIRRUP
S517	E	40	11'-2"	X		ABUTMENT DIAPHRAGM VERTICAL
S418	E	108	3'-4"	X		ABUTMENT DIAPHRAGM VERTICAL
S419	E	36	4'-0"			ABUTMENT DIAPHRAGM HORIZONTAL
S520	E	40	6'-0"			ABUTMENT DIAPHRAGM HORIZONTAL @ GIRDERS
S621	E	180	4'-7"			ABUTMENT DIAPHRAGM HORIZONTAL FF
S622	E	28	41'-1"	X		ABUTMENT DIAPHRAGM HORIZONTAL BF
S523	E	1	5'-9"	X		ABUTMENT DIAPHRAGM HORIZONTAL NORTHEAST END
S524	E	3	12'-9"	X		ABUTMENT DIAPHRAGM HORIZONTAL NORTHEAST END
S525	E	8	7'-4"	X		ABUTMENT DIAPHRAGM VERTICAL OUTSIDE GIRDERS
S526	E	45	11'-9"	X		PIER DIAPHRAGM STIRRUP
S527	E	18	9'-7"			PIER DIAPHRAGM STIRRUP
S428	E	54	4'-3"			PIER DIAPHRAGM HORIZONTAL
S929		150	5'-0"	X		ABUT DIAPH TO APPROACH SLAB
S430	E	4	3'-6"			ABUTMENT DIAPHRAGM VERTICAL @ NOTCH
S531	E	2	4'-3"			ABUTMENT DIAPHRAGM VERTICAL @ ENDS
S432	E	10	2'-3"	X		ABUTMENT DIAPHRAGM HORIZONTAL @ NOTCH
S533	E	3	11'-7"	X		ABUTMENT DIAPHRAGM HORIZONTAL NORTHWEST END
S534	E	1	11'-9"	X		ABUTMENT DIAPHRAGM STIRRUP SOUTHEAST END
S535	E	1	4'-11"	X		ABUTMENT DIAPHRAGM STIRRUP SOUTHEAST END

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

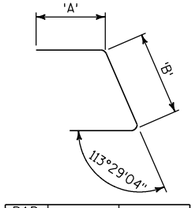
BAR SERIES TABLE

BAR MARK	NO. OF SERIES	LENGTH
S507	2 SERIES OF 29	4'-0" TO 36'-3"
S508	2 SERIES OF 33	1'-0" TO 37'-10"
S513	2 SERIES OF 27	4'-6" TO 34'-8"
S514	2 SERIES OF 34	1'-8" TO 39'-7"

BUNDLE AND TAG EACH SERIES SEPARATELY



BAR MARK	DIM. 'A'	DIM. 'B'
S515	2'-4"	2'-5"
S418	1'-0"	1'-3"
S625	2'-4"	1'-6"
S432	1'-3"	7"



BAR MARK	DIM. 'A'	DIM. 'B'
S623	1'-9"	3'-1"
S624	2'-10"	3'-1"

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-130

DRAWN BY GLM | PLANS CK'D. KES

SUPERSTRUCTURE DETAILS

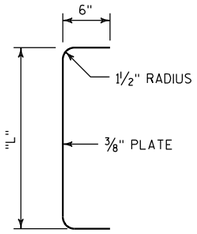
SHEET 18 OF 23

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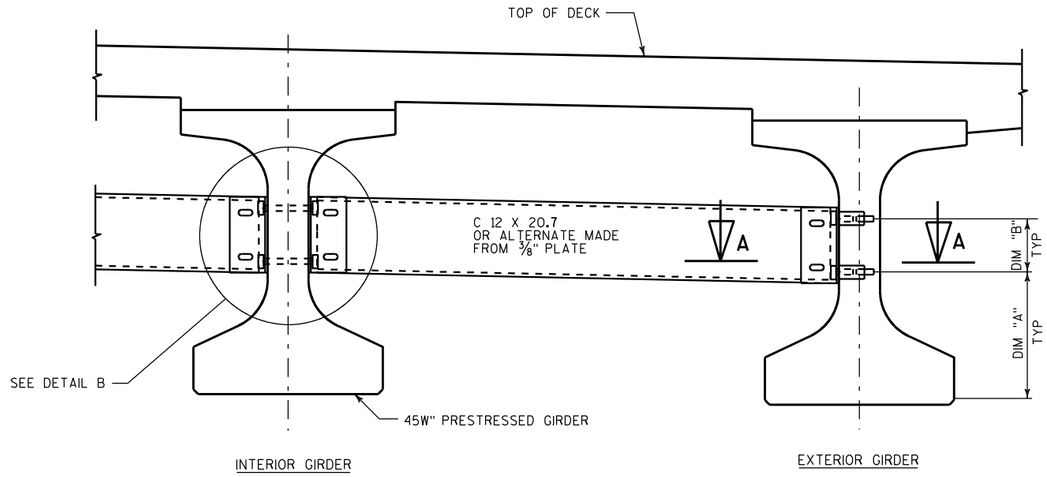
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SECTION THRU ALTERNATE DIAPHRAGM



PART TRANSVERSE SECTION AT DIAPHRAGM

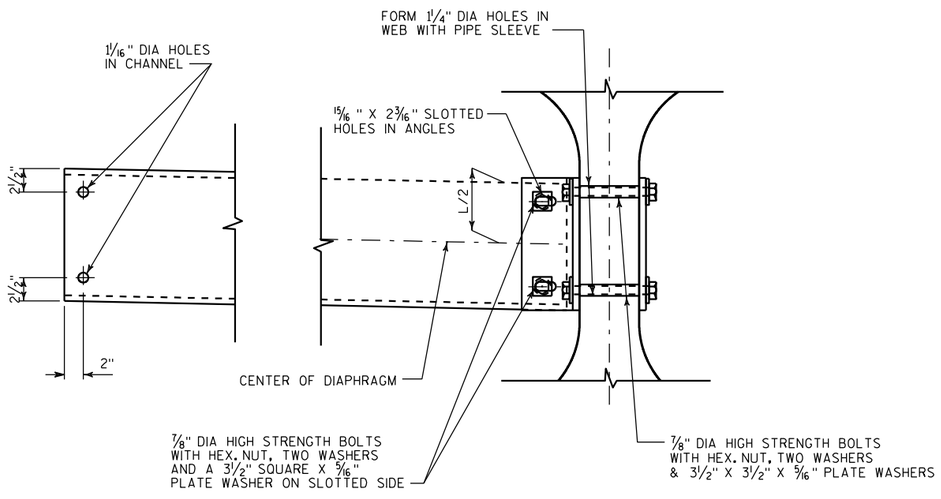
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-51-130", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

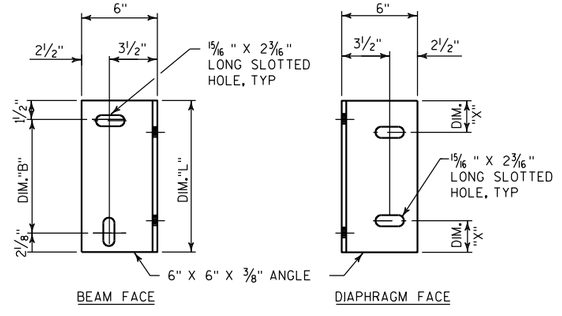
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

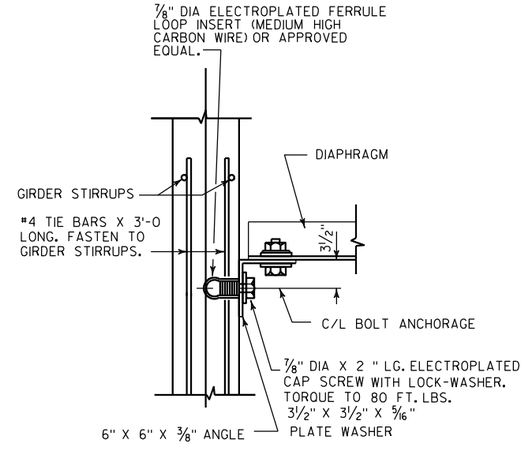


FOR STAGGERED DIAPHRAGMS
(INTERIOR GIRDERS ONLY)

DETAIL B



DIAPHRAGM SUPPORT



SECTION A-A

(FOR EXTERIOR ATTACHMENT)

TABLE

GIRDER HEIGHT	DIM. "A"	DIM. "B"	DIM. "L"	* DIM. "X"
45W"	1'-9⅛"	8⅞"	1'-0½"	2¾"

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-130

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STEEL DIAPHRAGM

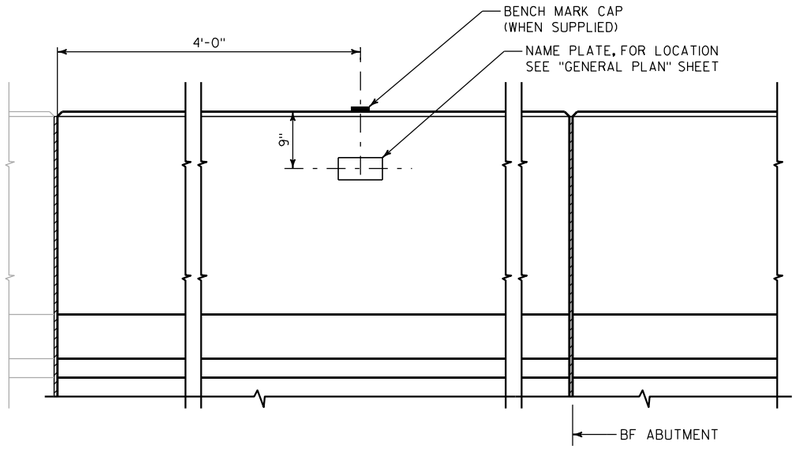
SHEET 19 OF 23

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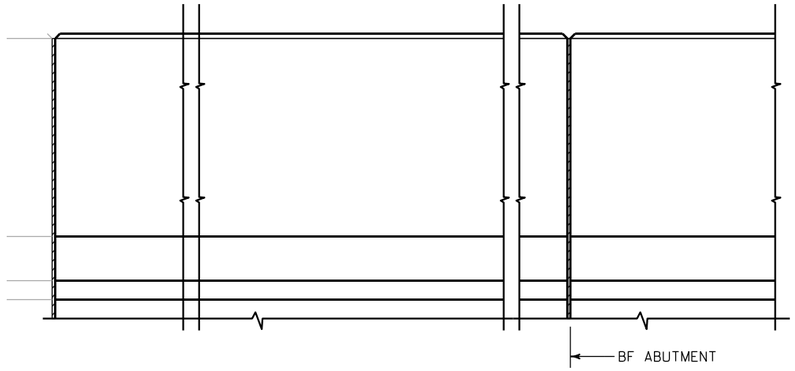
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INSIDE ELEVATION
EAST PARAPET

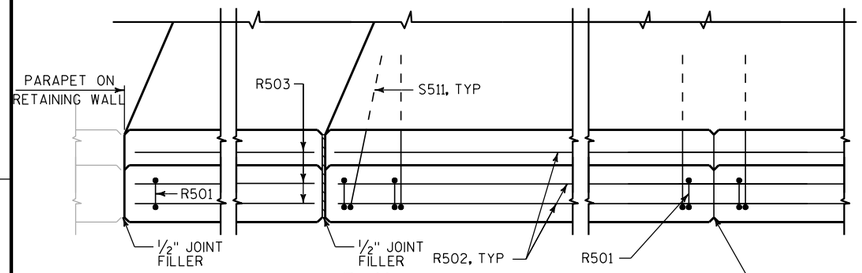


INSIDE ELEVATION
WEST PARAPET

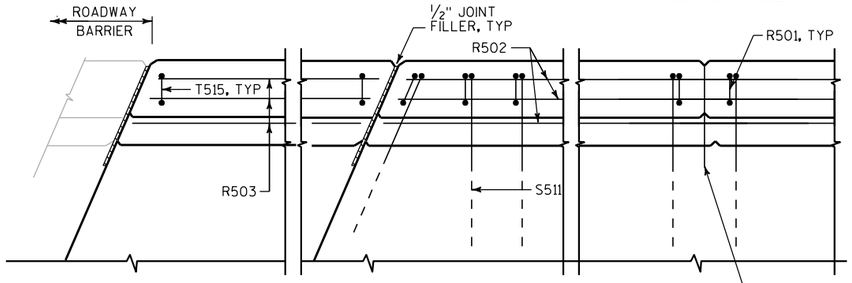
BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
R501	E	762	6'-8"	X	PARAPET VERTICAL TIE
R502	E	80	46'-0"		PARAPET LONGITUDINAL
R503	E	16	18'-6"		PARAPET LONGITUDINAL

PARAPET REINFORCEMENT QUANTITIES ON APPROACH SLABS ARE INCLUDED IN THE SUPERSTRUCTURE REINFORCEMENT QUANTITY.



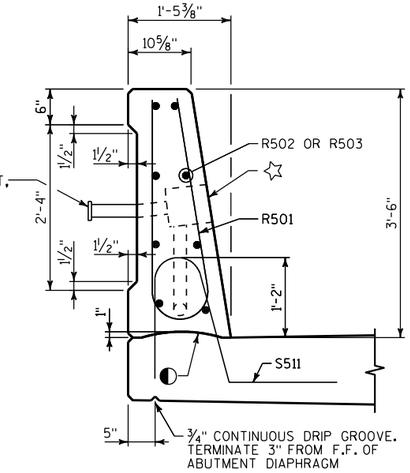
PLAN
EAST PARAPET



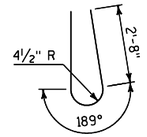
PLAN
WEST PARAPET

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINFORCEMENT THRU THE JOINT. MINIMUM JOINT SPACING OF 80'-0". DEFINE JOINT WITH A ¾" 'V' GROOVE

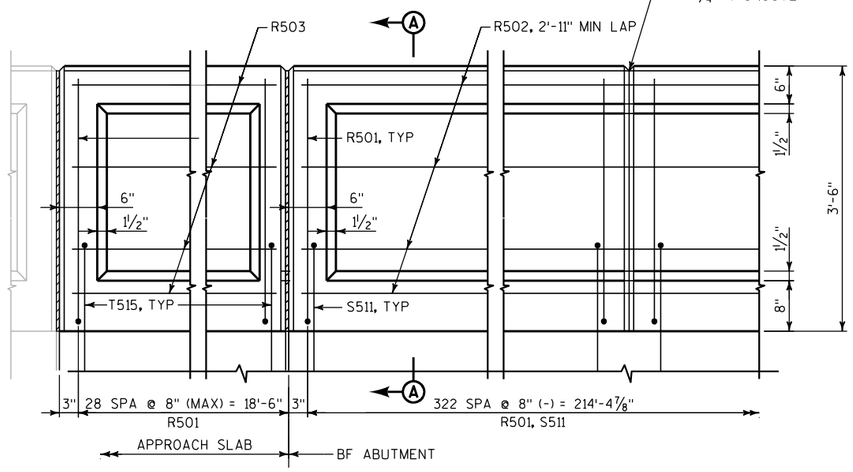
STUB OUT NON-METALLIC CONDUIT, SCHEDULE 40 2-INCH, 1'-0" FROM EACH END OF WEST PARAPET. PROVIDE REMOVABLE CAP



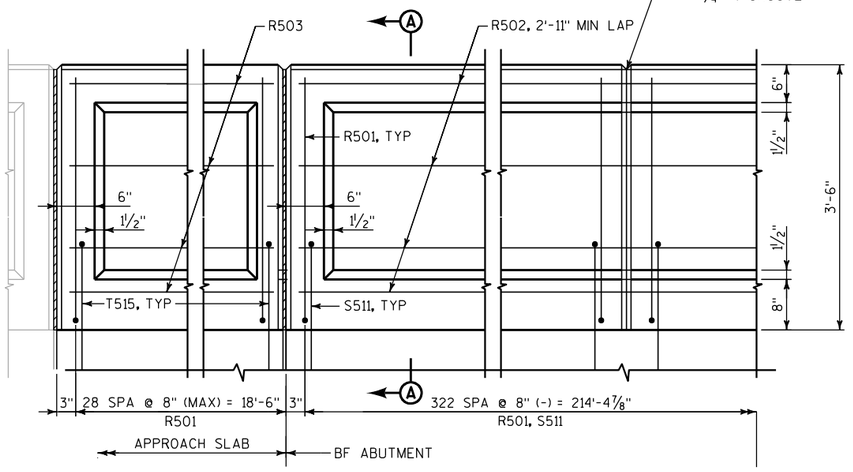
SECTION A-A
SECTION @ APPROACH SLAB SIMILAR



R501



OUTSIDE ELEVATION
EAST PARAPET



OUTSIDE ELEVATION
WEST PARAPET

LEGEND

☆ 18 X 6 X 6 JUNCTION BOX, TYP EACH END OF WEST PARAPET

◐ CONST. JOINT - STRIKE OFF AS SHOWN

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-130

DRAWN BY	GLM	PLANS CK'D.	KES

SINGLE SLOPE PARAPET 42SS MODIFIED

SHEET 20 OF 23

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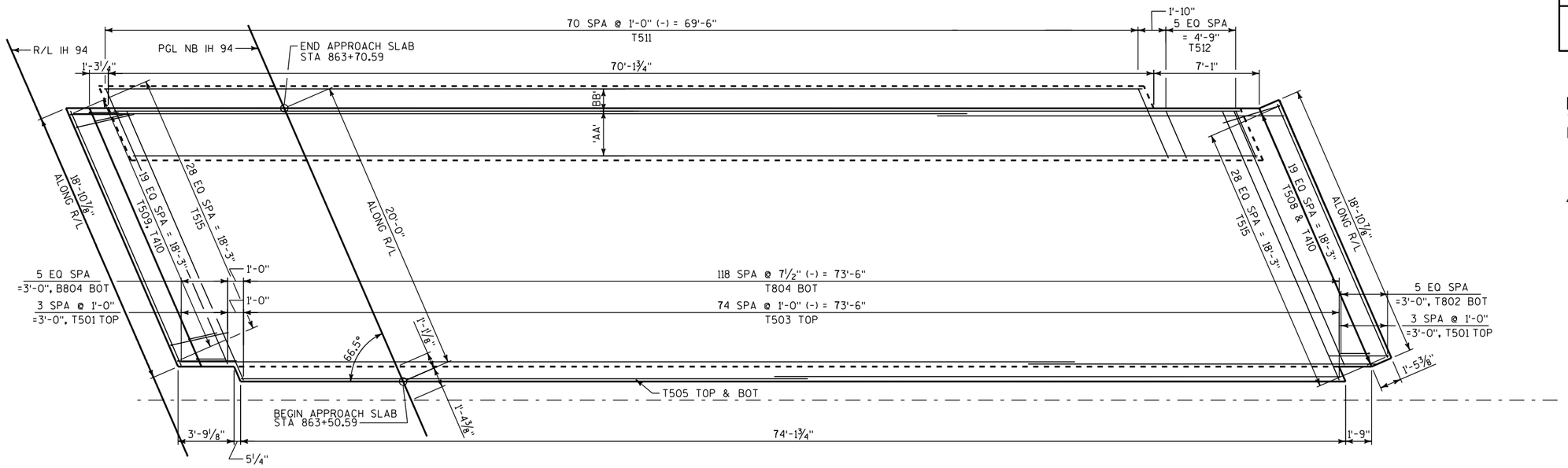
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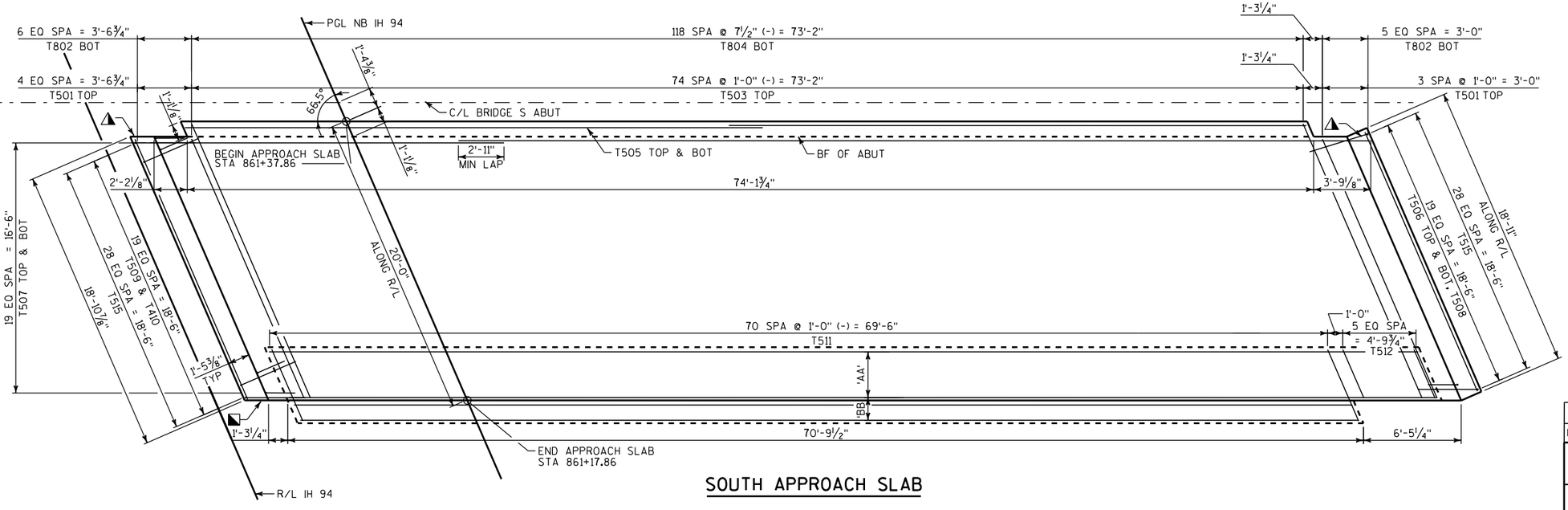
LEGEND

- PROVIDE ½" PREFORMED JOINT FILLER BETWEEN EDGE OF APPROACH SLAB FOOTING AND RETAINING WALL MOMENT SLAB.
- SEAL ALL EXPOSED, HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

'AA' = 3 SPA @ 11" T513
'BB' = 1 SPA @ 10" (-) T514



NORTH APPROACH SLAB



SOUTH APPROACH SLAB

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-130

DRAWN BY GLM | PLANS CK'D. KES

STRUCTURAL APPROACH SLAB

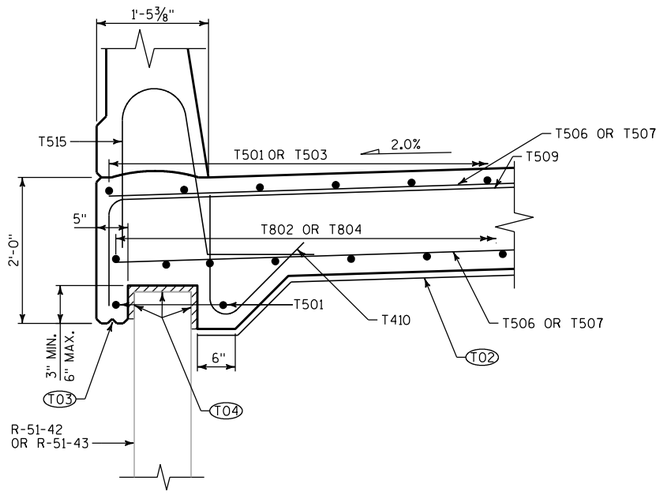
SHEET 21 OF 23

537

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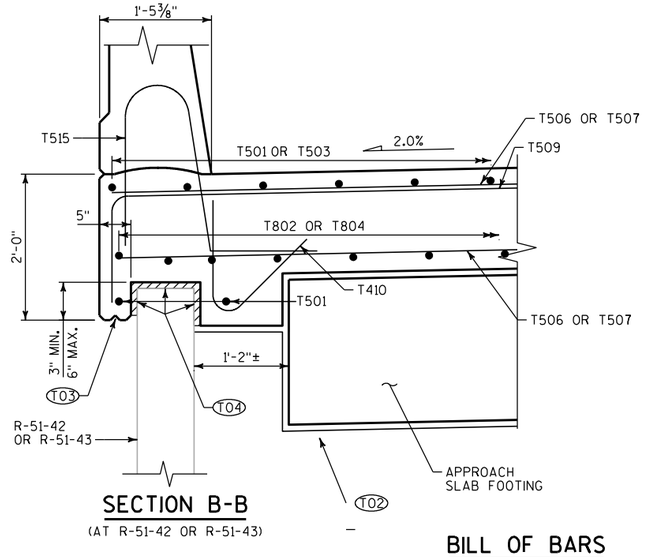
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PLOT BY : MSCKES
PLOT NAME : B51130_080701_as
PLOT SCALE : 8.000496:1

STATE PROJECT NUMBER
1033-02-72



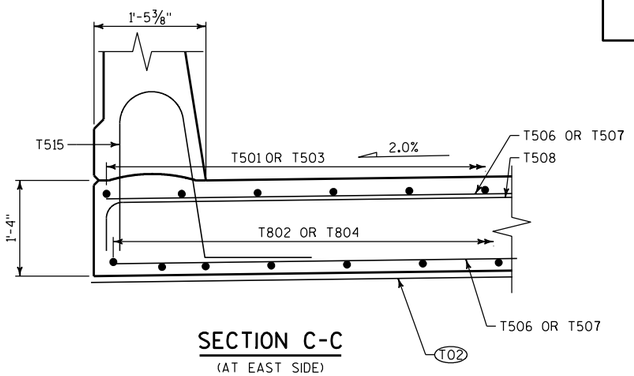
SECTION A-A

(AT R-51-42 OR R-51-43)



SECTION B-B

(AT R-51-42 OR R-51-43)



SECTION C-C

(AT EAST SIDE)

LEGEND

(T01) STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.

(T02) PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHYLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE. POLYETHYLENE SHEETS SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES".

(T03) ¾" CONT. DRIP GROOVE. TERMINATE 2'-0" FROM ABUTMENT BACKWALL.

(T04) 1" EXPANDED POLYSTYRENE

APPROACH SLAB NOTES

THE DECK SHALL HAVE A TINE FINISH AS DEFINED IN THE STANDARD SPECIFICATIONS.

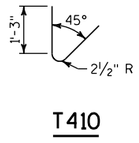
SEE PARAPET SHEETS FOR PARAPET REINFORCING TIE PLACEMENT REQUIRED IN APPROACH SLABS.

IN ADDITION TO THE AREAS OUTLINED IN THE STANDARD SPECIFICATIONS, APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF APPROACH SLAB SURFACE, TOPS OF PARAPETS, INSIDE FACES OF PARAPETS, AND AREAS SHOWN IN THE APPROACH SLAB SECTION.

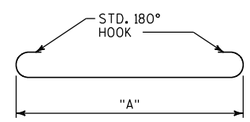
BILL OF BARS

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NORTH APPR SLAB	SOUTH APPR SLAB	LENGTH	BENT	LOCATION
T501	X	10	9	18'-6"	-	ALONG R/L - TOP - OUTSIDE OF PAVING NOTCH
T802	X	14	13	20'-4"	X	ALONG R/L - BOT - OUTSIDE OF PAVING NOTCH
T503	X	75	75	19'-7"	-	ALONG R/L - TOP
T804	X	119	119	21'-5"	X	ALONG R/L - BOT
T505	X	4	4	38'-6"	-	TRANSVERSE - INSIDE PAVING NOTCH
T506	X	40	40	60'-0"	-	TRANSVERSE - EAST SIDE
T507	X	40	40	23'-6"	-	TRANSVERSE - WEST SIDE
T508	X	20	20	5'-9"	X	TRANSVERSE - EAST SIDE - OUTSIDE
T509	X	20	19	5'-9"	X	TRANSVERSE - WEST SIDE - OUTSIDE
T410	X	20	19	3'-0"	X	TRANSVERSE - WEST SIDE - OUTSIDE
T511	X	74	74	12'-5"	X	TRANSVER STIRRUP - FOOTING
T512	X	6	6	9'-1"	X	TRANSVER STIRRUP - FOOTING - WEST
T513	X	8	8	40'-9"	-	LONGITUDINAL - INTERIOR - FOOTING
T514	X	4	4	38'-0"	-	LONGITUDINAL - EXTERIOR - FOOTING
T515	X	58	58	5'-5"	X	PARAPET DOWEL

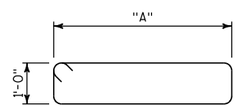


T410



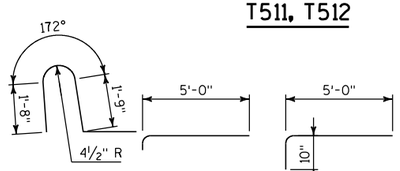
BAR	"A"
T802	18'-6"
T804	19'-7"

T802, T804

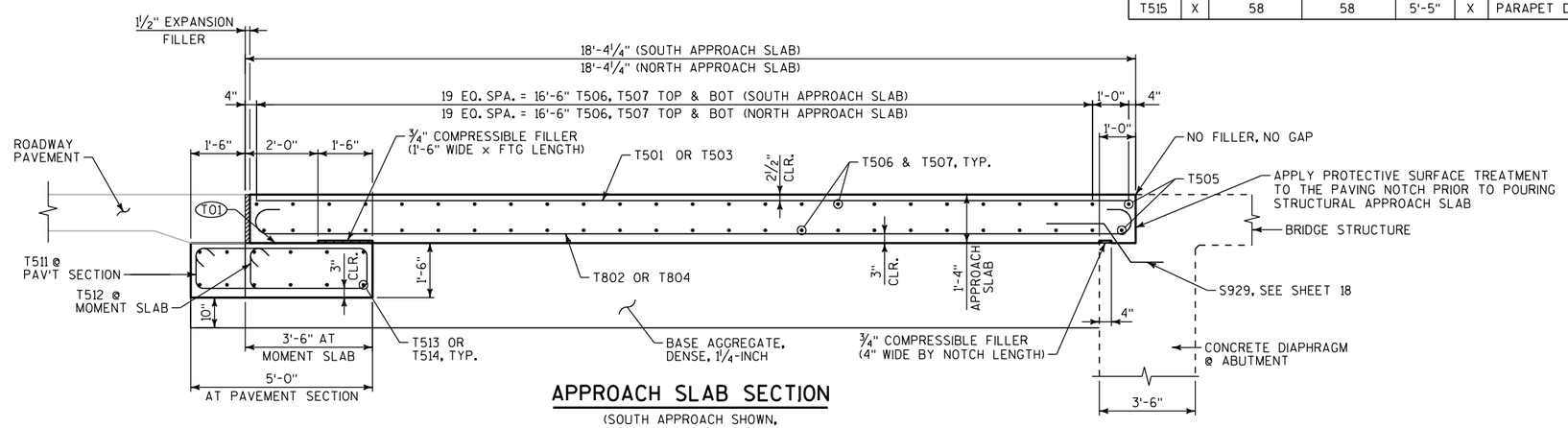


BAR	"A"
T511	4'-11"
T512	3'-3"

T511, T512



T515 T508 T509



APPROACH SLAB SECTION

(SOUTH APPROACH SHOWN,
NORTH APPROACH SIMILAR BUT OPPOSITE)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-130

DRAWN BY GLM | PLANS CK'D. KES

STRUCTURAL APPROACH SLAB DETAILS

SHEET 22 OF 23

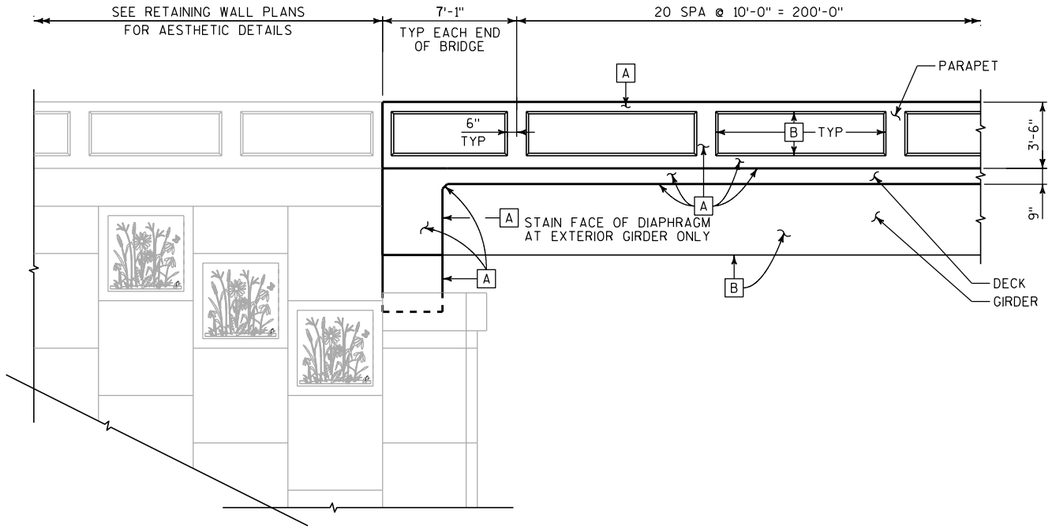
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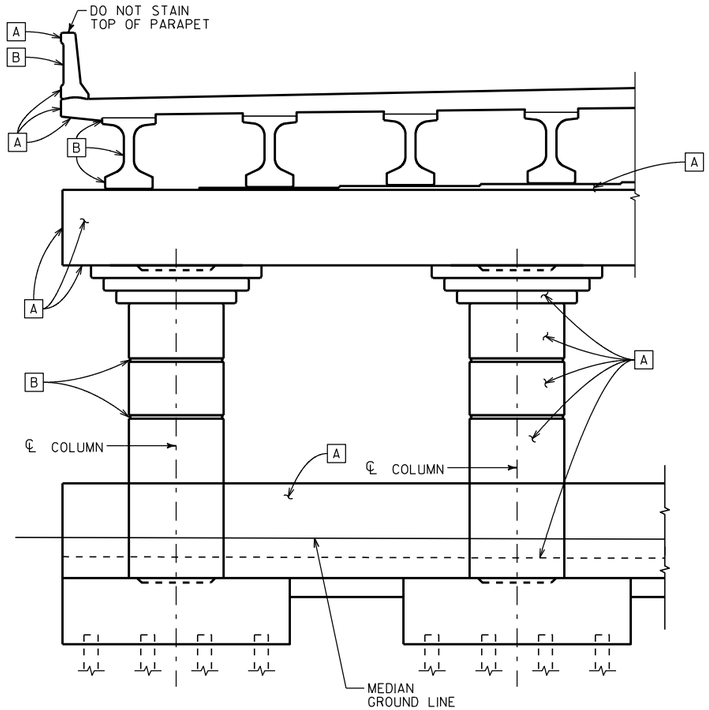
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STATE PROJECT NUMBER
1033-02-72



ELEVATION OF ABUTMENT & PARAPET



ELEVATION OF PIER

CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION	NOTES
A	BASE COLOR	PIER	PIER CAP, COLUMNS & FILLER WALL , EXCEPT AS NOTED FOR ACCENT COLORS TO 1'-0" BELOW FINAL GRADE
		SLOPED FACE PARAPET	EXTERIOR SIDE, EXCEPT AS NOTED FOR ACCENT COLORS
		DECK	FASCIA & EXPOSED UNDERSIDE TO EXTERIOR GIRDER FLANGE
		ABUTMENTS	FRONT FACE FROM UNDERSIDE OF DECK TO FINAL GRADE BEHIND MSE WALL INCLUDING BETWEEN ALL GIRDERS
B	ACCENT COLOR #1	COLUMNS	HORIZONTAL RUSTICATIONS
		SLOPED FACE PARAPET	RECESSED PANELS ON EXTERIOR SIDES
		GIRDERS	EXTERIOR FACE AND UNDERSIDE OF EXTERIOR GIRDERS

STAIN COLORS

THE FINAL COLOR OF THE CONCRETE FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:

BASE COLOR : 33564
ACCENT COLOR #1: 33448

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-130

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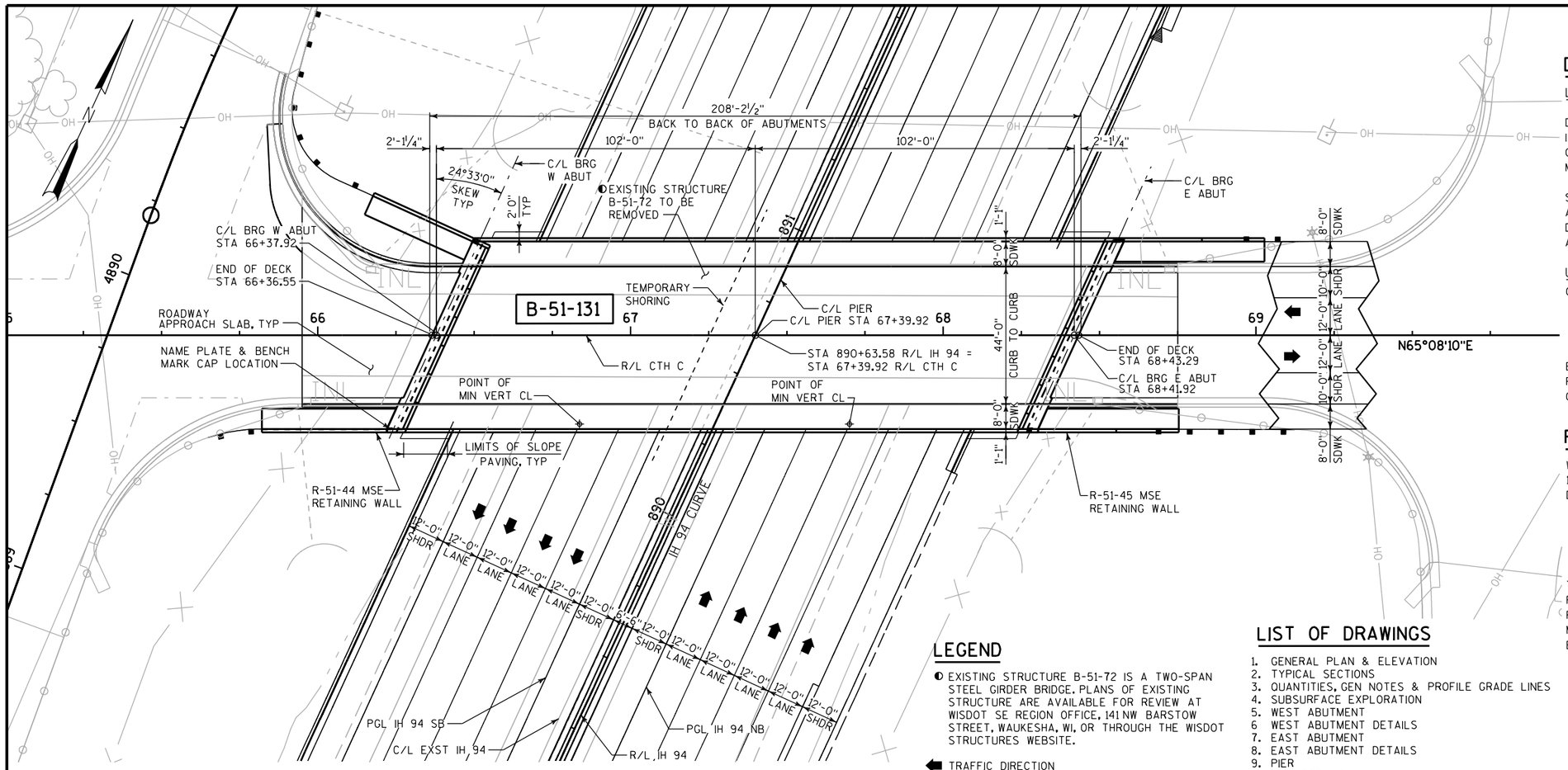
AESTHETIC DETAILS

SHEET 23 OF 23

539

FILE NAME : S:\FinalDesign\20\10330272_M\Structs\B-51-130\cds\B51130_080801_ae.dgn PLOT DATE : 08-NOV-2013 14:30 PLOT BY : MSCKES PLOT NAME : B51130_080801_ae PLOT SCALE : 8:1

STATE PROJECT NUMBER
1033-02-72



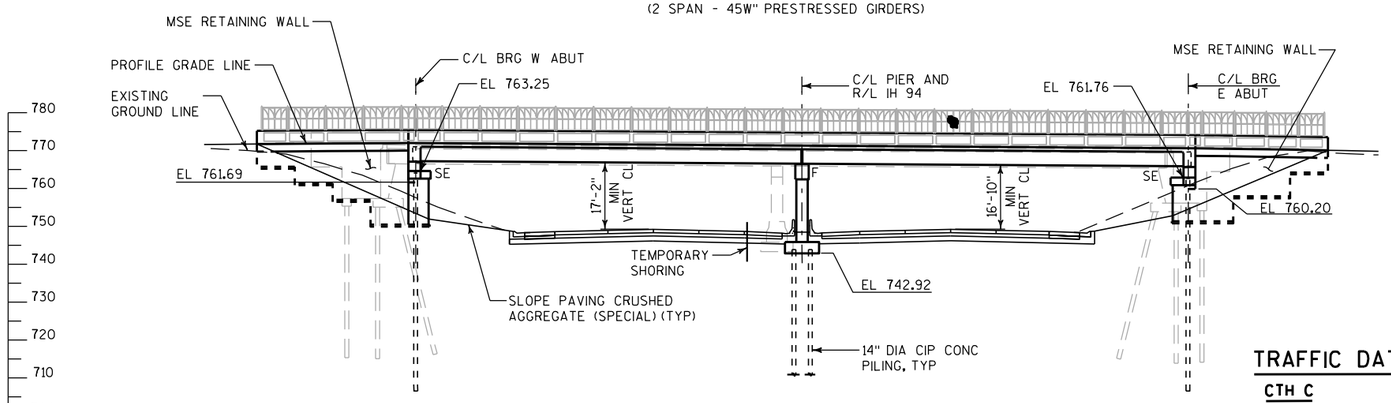
LEGEND

◐ EXISTING STRUCTURE B-51-72 IS A TWO-SPAN STEEL GIRDER BRIDGE. PLANS OF EXISTING STRUCTURE ARE AVAILABLE FOR REVIEW AT WISDOT SE REGION OFFICE, 141 NW BARSTOW STREET, WAUKESHA, WI, OR THROUGH THE WISDOT STRUCTURES WEBSITE.

⬅ TRAFFIC DIRECTION

PLAN

(2 SPAN - 45W" PRESTRESSED GIRDERS)



ELEVATION

(LOOKING NORTH)

TRAFFIC DATA

CTH C	IH 94
A.D.T. = 7,130 (2010)	A.D.T. = 92,320 (2010)
A.D.T. = 9,300 (2030)	A.D.T. = 114,600 (2035)
R.D.S. = 55 MPH	R.D.S. = 70 MPH

DESIGN DATA

LIVE LOAD

DESIGN LOADING: HL-93
INVENTORY RF: 1.00
OPERATING RF: 1.30
MAXIMUM STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A 1½" WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN DOES NOT PROVIDE FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE.

ULTIMATE DESIGN STRESSES:

CONCRETE MASONRY:
- SUPERSTRUCTURE (HPC) ..... f'c = 4,000 psi
- SUBSTRUCTURE ..... f'c = 4,000 psi
- CIP CONCRETE PILING ..... f'c = 3,500 psi
- 45W-INCH PRESTRESSED GIRDERS ..... f'c = 8,000 psi

BAR STEEL REINFORCEMENT ..... fy = 60,000 psi
PRESTRESSING STRANDS...ULTIMATE TENSILE STRENGTH = 270,000 psi
CIP CONC PILING (0.375-INCH WALL THK.),
ASTM A252, GRADE 3 ..... fy = 45,000 psi

FOUNDATION DATA

WEST ABUTMENT, PIER, AND EAST ABUTMENT TO BE SUPPORTED ON 14" DIA CIP CONCRETE PILING REQUIRED DRIVING RESISTANCE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD:
- WEST ABUTMENT ..... 130 TONS/PILE
- PIER ..... 130 TONS/PILE
- EAST ABUTMENT ..... 130 TONS/PILE

THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.65 USING THE PDA/CAPWAP ACCEPTANCE METHOD TO DETERMINE DRIVEN PILE CAPACITY.

ESTIMATED PILE LENGTHS:
- WEST ABUTMENT ..... 75 FEET
- PIER ..... 60 FEET
- EAST ABUTMENT ..... 75 FEET

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTIONS
3. QUANTITIES, GEN NOTES & PROFILE GRADE LINES
4. SUBSURFACE EXPLORATION
5. WEST ABUTMENT
6. WEST ABUTMENT DETAILS
7. EAST ABUTMENT
8. EAST ABUTMENT DETAILS
9. PIER
10. PIER DETAILS
11. 45W" PRESTRESSED GIRDER
12. 45W" PRESTRESSED GIRDER DETAILS
13. SUPERSTRUCTURE
14. SUPERSTRUCTURE REINFORCEMENT
15. SUPERSTRUCTURE CROSS SECTION
16. SUPERSTRUCTURE DETAILS
17. SUPERSTRUCTURE DETAILS
18. STEEL DIAPHRAM
19. SOUTH VERTICAL FACE PARAPET
20. NORTH VERTICAL FACE PARAPET
21. VERTICAL FACE PARAPET SECTIONS
22. DECORATIVE FENCE BRIDGE (1 OF 4)
23. DECORATIVE FENCE BRIDGE (2 OF 4)
24. DECORATIVE FENCE BRIDGE (3 OF 4)
25. DECORATIVE FENCE BRIDGE (4 OF 4)
26. AESTHETIC DETAILS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

NO.	DATE	REVISION	BY

Milwaukee Transportation Partners LLC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher 11/11/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN KARL E. SCHMID E-30812 MILWAUKEE, WI PROFESSIONAL ENGINEER
11/08/2013

STRUCTURE B-51-131

CTH C OVER IH 94/USH 41

COUNTY	TOWN/CITY/VILLAGE
RACINE	YORKVILLE/MT PLEASANT

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

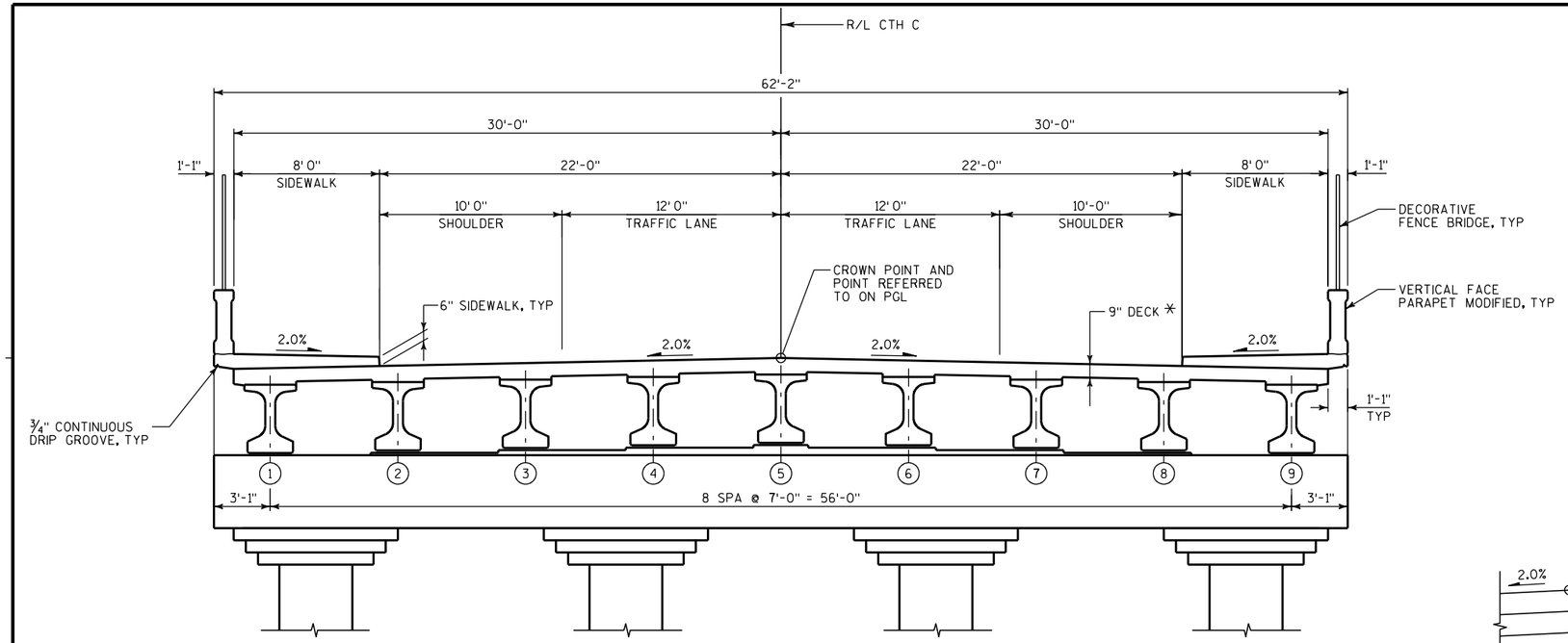
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
CNK	BKS	GLM	KES

GENERAL PLAN & ELEVATION

SHEET 1 OF 26

540

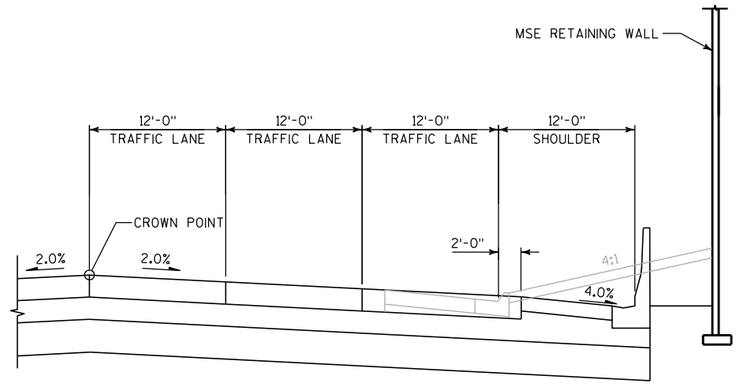
STATE PROJECT NUMBER
1033-02-72



* 9" DECK THICKNESS INCLUDES A 1½" SACRIFICIAL WEARING SURFACE PLACED INTERGRAL WITH THE DECK AT INITIAL CONSTRUCTION.

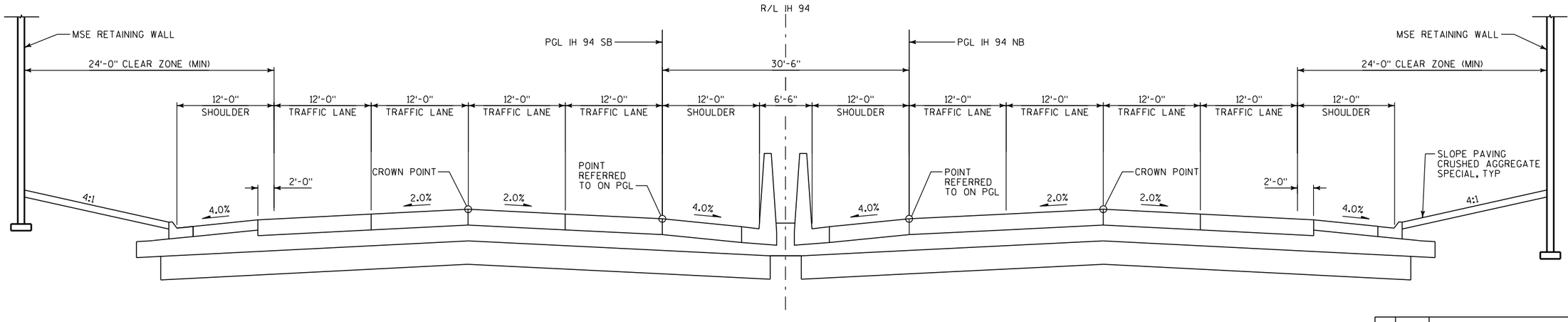
TYPICAL SECTION THRU CTH C

45W" PRESTRESSED CONCRETE GIRDERS
(LOOKING EAST)



TYPICAL ULTIMATE SECTION THRU IH 94 NB

(LOOKING NORTH)



TYPICAL SECTION THRU IH 94

(LOOKING NORTH)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY GLM | PLANS CK'D. KES

TYPICAL SECTIONS

SHEET 2 OF 26

541

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FILE NAME : S:\FinalDesign\20\10330272_M\Structs\B-51-131\cds\B131_080102_ts.dgn PLOT DATE : 08-NOV-2013 15:00 PLOT BY : MSCKES PLOT NAME : B131_080102_ts PLOT SCALE : 8:1

STATE PROJECT NUMBER
1033-02-72

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	WEST ABUTMENT	PIER	EAST ABUTMENT	SUPER	TOTAL
203.0200	REMOVING OLD STRUCTURE STATION 890+83.23	LS	----------	----------	----------	----------	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-51-131	LS	----------	----------	----------	----------	1
206.6010.S	TEMPORARY SHORING	SF	----------	600	----------	----------	600
209.0100	BACKFILL GRANULAR	CY	----------	60	----------	----------	60
210.0100	BACKFILL STRUCTURE	CY	100	----------	100	----------	200
502.0100	CONCRETE MASONRY BRIDGES	CY	42	108	43	----------	193
502.3200	PROTECTIVE SURFACE TREATMENT	SY	----------	----------	----------	395	395
503.0146	PRESTRESSED GIRDER I TYPE 45W-INCH	LF	----------	----------	----------	1,843	1,843
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	----------	3,470	----------	----------	3,470
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	3,880	22,430	4,060	139,430	169,800
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	9	18	9	----------	36
506.4000	STEEL DIAPHRAGMS B-51-131	EACH	----------	----------	----------	32	32
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	12	----------	13	----------	25
517.1010.S.0003	CONCRETE STAINING B-51-131	SF	205	1,780	220	7,940	10,145
550.2146	PILING CONCRETE 14 X 0.375-INCH	LF	1,275	2,160	1,275	----------	4,710
604.0400	SLOPE PAVING CONCRETE	SY	15	----------	15	----------	30
SPV.0035.4000	HPC MASONRY STRUCTURES	CY	----------	----------	----------	603	603
SPV.0060.4100	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	2	2	2	----------	6
SPV.0060.4110	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	2	2	2	----------	6
SPV.0090.4400	FENCE DECORATIVE BRIDGE	LF	----------	----------	----------	422	422
SPV.0165.4700	LONGITUDINAL GROOVING BRIDGE DECK	SF	----------	----------	----------	9,100	9,100
SPV.0180.4800	SLOPE PAVING CRUSHED AGGREGATE SPECIAL	SY	110	----------	110	----------	220
	NON-BID ITEMS						
	PREFORMED JOINT FILLER	SIZE					1/2" & 3/4"
	NON-BITUMINOUS JOINT FILLER	SIZE					1/2" & 3/4"
	NAME PLATE	EACH					1

NOTE: ALL ITEMS ARE CATEGORY 2200

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE PLACED WITH 2" OF CLEAR CONCRETE COVER UNLESS OTHERWISE NOTED. THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE DECK SHALL BE PLACED WITH 3 1/2" OF CLEAR CONCRETE COVER.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NGVD DATUM.

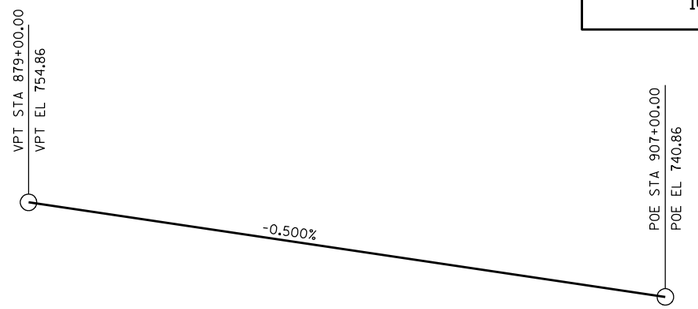
ALL REINFORCING BARS ARE ENGLISH. THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET.

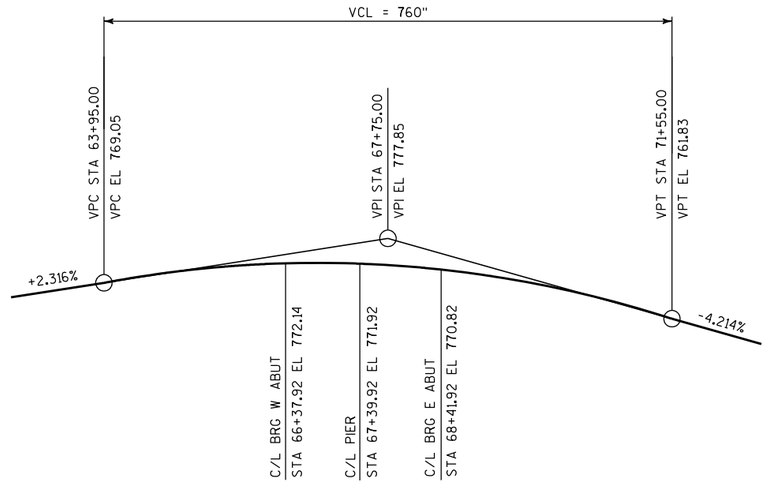
THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMIT OF EXCAVATION FOR STRUCTURES.

AT ABUTMENTS ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH GRANULAR BACKFILL.

THE HAUNCH CONCRETE QUANTITY IS BASED ON AN AVERAGE DEPTH OF 2 1/2", WHICH IS THE MAXIMUM HAUNCH QUANTITY FOR WHICH THE CONTRACTOR WILL BE PAID.



PROFILE GRADE LINE - IH 94 NB & IH 94 SB



PROFILE GRADE LINE - CTH C

HORIZONTAL CURVE DATA

(IH 94 CURVE)
PI = STA 889+89.14
N = 188258.10
E = 594022.57
DELTA = 0°52'44"
R = 57301.78
T = 439.52
L = 879.03
E = 1.69
PC = 885+49.62
PT = 894+28.65

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY AMH | PLANS CK'D. KES

QUANTITES, GENERAL NOTES & PROFILE GRADE LINES

SHEET 3 OF 26

542

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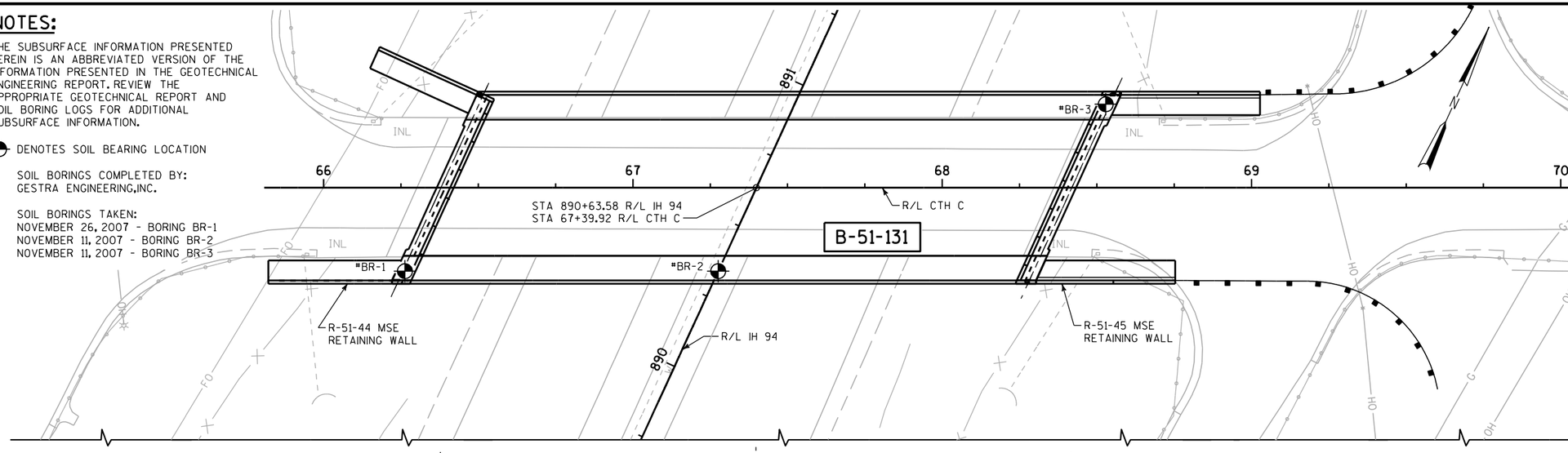
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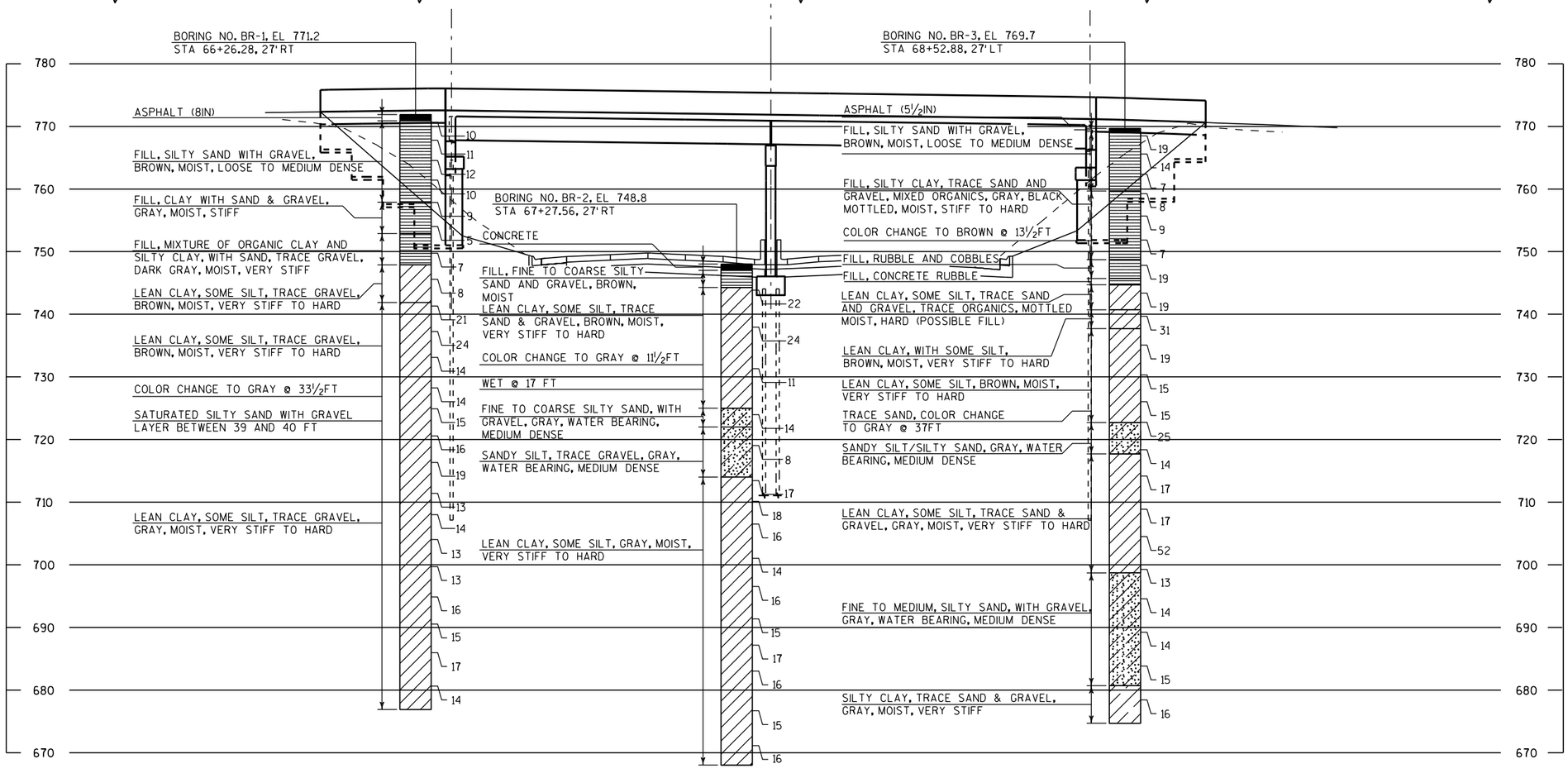
THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

⊕ DENOTES SOIL BEARING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING,INC.

SOIL BORINGS TAKEN:
NOVEMBER 26, 2007 - BORING BR-1
NOVEMBER 11, 2007 - BORING BR-2
NOVEMBER 11, 2007 - BORING BR-3





STATE PROJECT NUMBER

1033-02-72

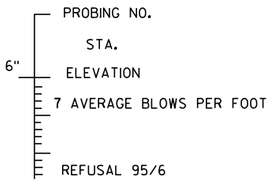
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

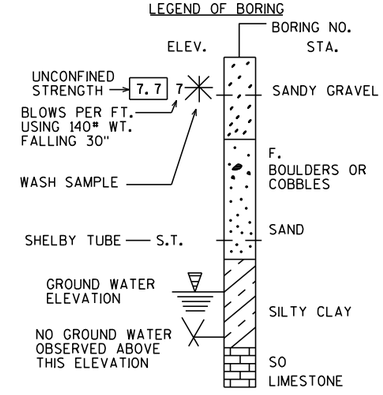
MATERIAL SYMBOLS

TOPSOIL / FILL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY GLM | PLANS CK'D. KES

SUBSURFACE EXPLORATION

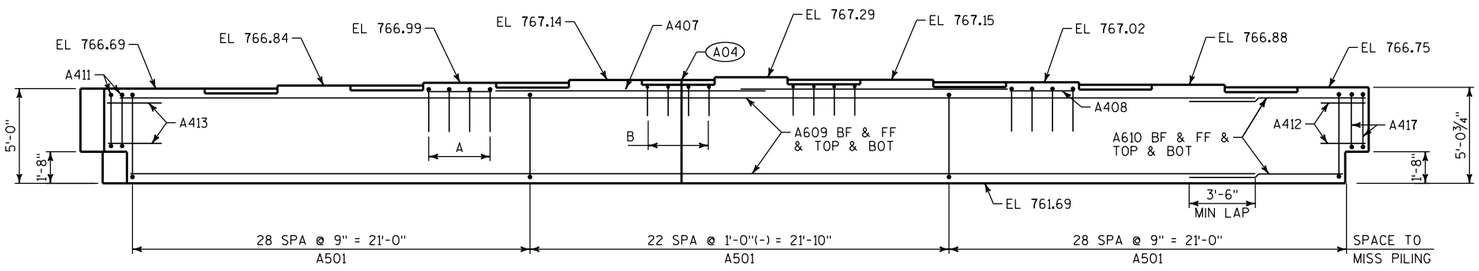
SHEET 4 OF 26

543

8

8

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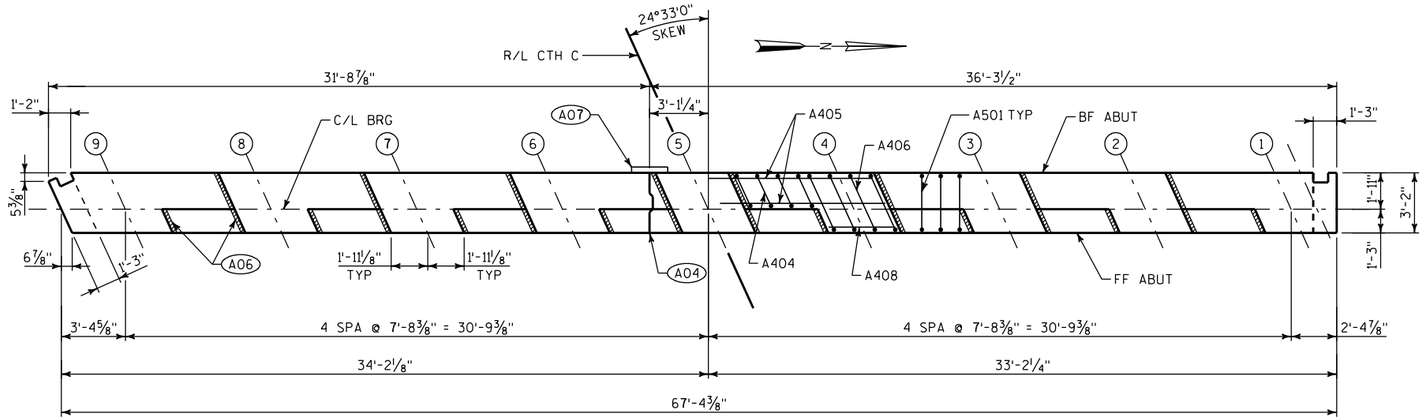


ELEVATION

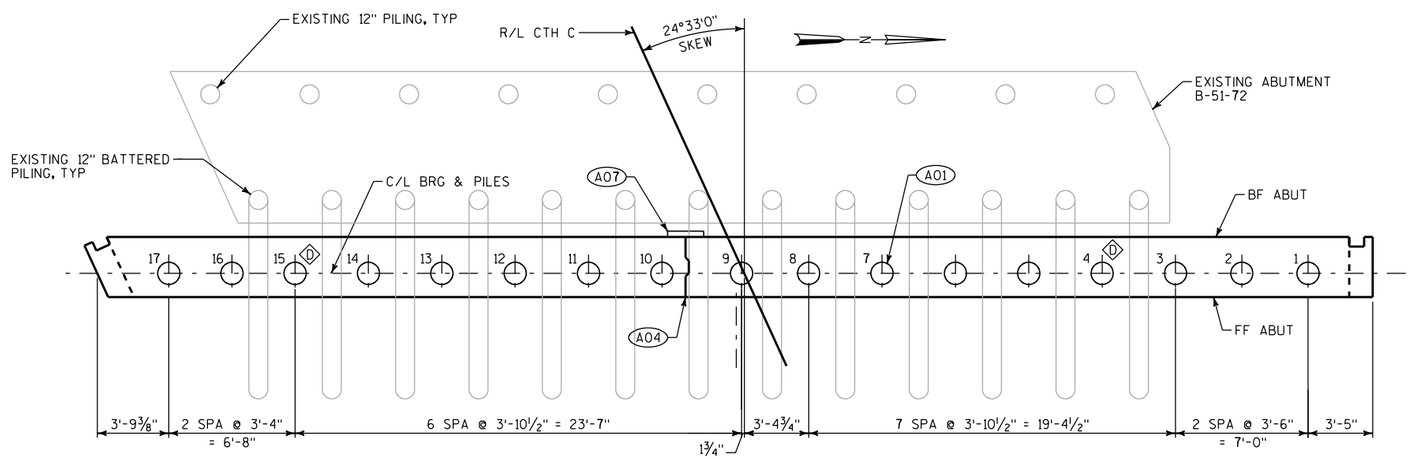
(LOOKING WEST)

A - 3 SPA @ 1'-1" = 3'-3", ADD'T A406 SEAT REINF REQ'D @ GIRDERS 3 THRU 7

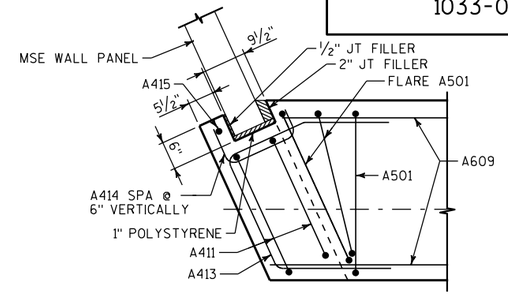
B - 3 SPA @ 1'-1" = 3'-3", A404 BETWEEN GIRDER SEATS



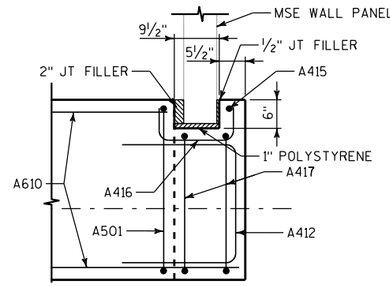
PLAN



PILE PLAN



ABUTMENT SOUTH CORNER DETAIL



ABUTMENT NORTH CORNER DETAIL

NOTES:

(A01) 14" DIA CIP CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD.
ESTIMATED PILE LENGTH = 75 FEET.

NOTE - PROPOSED PILES MAY BE MOVED UP TO 8" ALONG THE C/L BRG & PILES TO AVOID CONFLICTS WITH EXISTING PILES. IF GREATER ADJUSTMENT IS NECESSARY, CONTACT THE ENGINEER FOR ADDITIONAL INSTRUCTIONS BEFORE PROCEEDING.

LOCATION OF EXISTING PILES IS SHOWN BASED ON AS-BUILT INFORMATION ONLY. FIELD VERIFY PILE LOCATIONS IMMEDIATELY AFTER EXPOSURE AND NOTIFY THE ENGINEER OF ANY DEVIATIONS NOTED.

(A04) KEYED CONST JOINT FORMED BY BEVELED 2" x 8".

(A06) ¾" CORK FILLER ON VERT BEAM SEAT FACES, TYP.

(A07) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

◇D DYNAMIC PILE LOAD TESTING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY GLM | PLANS CK'D. KES

WEST ABUTMENT

SHEET 5 OF 26

544

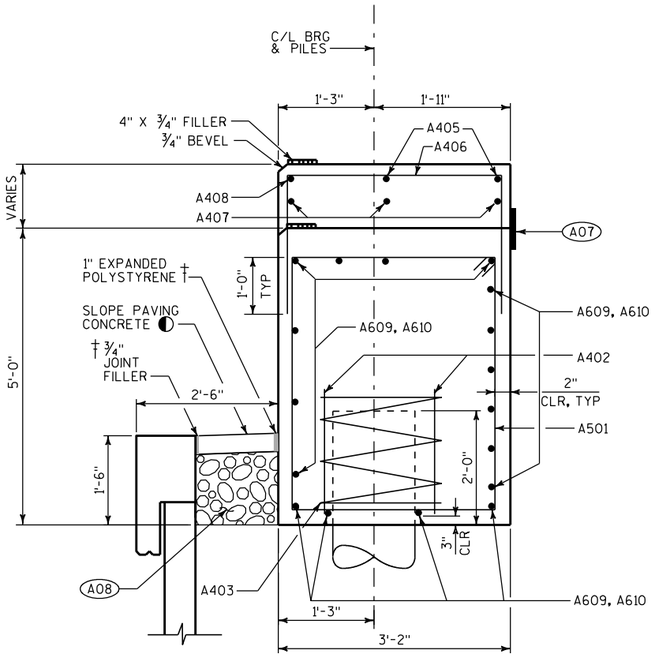
STATE PROJECT NUMBER

1033-02-72

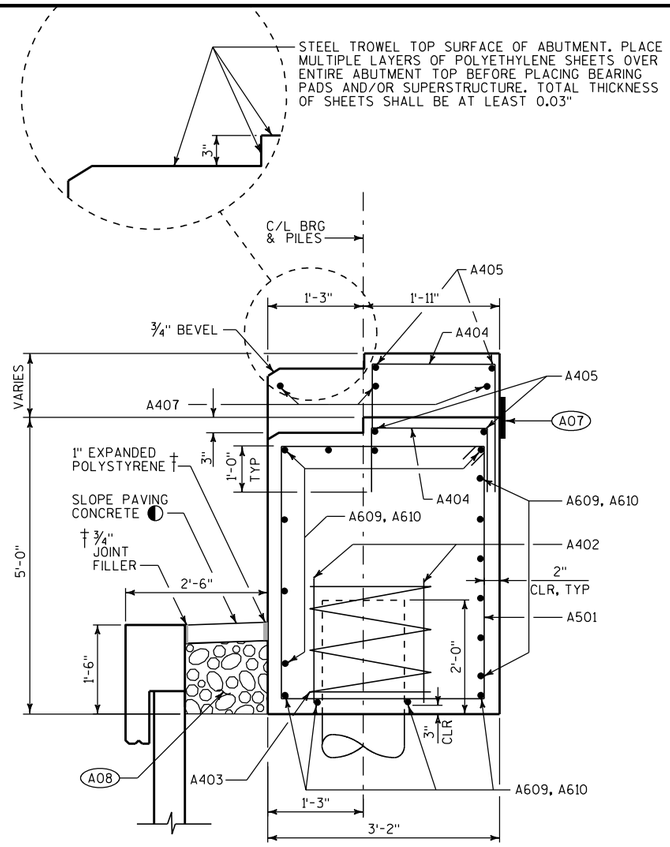
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8

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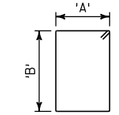
SECTION THRU BODY
(AT GIRDER SEATS)



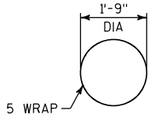
SECTION THRU BODY
(BETWEEN GIRDER SEATS)

BILL OF BARS

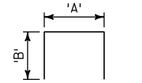
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A501	X	80	14'-11"	X		ABUTMENT BODY STIRRUPS
A402	X	34	2'-3"			ABUTMENT PILES VERTICAL - 2 PER PILE
A403	X	17	28'-0"	X		ABUTMENT PILES SPIRAL - 1 PER PILE
A404	X	32	4'-11"	X		ABUTMENT BODY TOP - BWTN BEAM SEATS
A405	X	16	9'-6"			ABUT BODY TOP - HORIZ BWTN BEAM SEATS
A406	X	20	6'-3"	X		ABUT BODY TOP - UNDER GIRS 3-7
A407	X	6	14'-6"			ABUT BODY TOP - HORIZ UNDER GIRS 4-6
A408	X	5	3'-6"			ABUT BODY TOP - BEAM SEAT FF GIRS 3-7
A609	X	17	60'-0"			ABUTMENT BODY HORIZONTAL
A610	X	17	10'-8"			ABUTMENT BODY HORIZONTAL
A411	X	2	10'-8"	X		ABUTMENT BODY END STIRRUPS
A412	X	3	6'-1"	X		ABUTMENT BODY - HORIZONTAL ENDS
A413	X	3	7'-4"	X		ABUTMENT BODY - HORIZONTAL ENDS
A414	X	7	2'-0"	X		ABUTMENT BODY @ NOTCH
A415	X	2	3'-0"			ABUTMENT BODY @ NOTCH - VERTICAL
A416	X	7	2'-2"	X		ABUTMENT BODY @ NOTCH
A417	X	2	11'-2"	X		ABUTMENT BODY END STIRRUPS



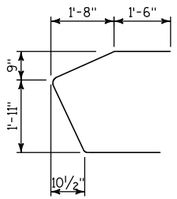
BAR MARK	DIM. 'A'	DIM. 'B'
A501	2'-10"	4'-4"
A411	2'-2"	2'-11"
A417	2'-4"	3'-0"



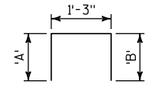
A403



BAR MARK	DIM. 'A'	DIM. 'B'
A404	1'-9"	1'-8"
A406	3'-1"	1'-8"
A412	2'-3"	2'-0"



A413



BAR MARK	DIM. 'A'	DIM. 'B'
A414	6½"	4½"
A416	6½"	6½"

NOTES:

FOR FALL PROTECTION DETAILS, SEE EAST ABUTMENT DETAILS SHEET 8.

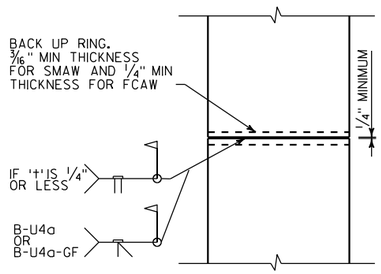
LEGEND

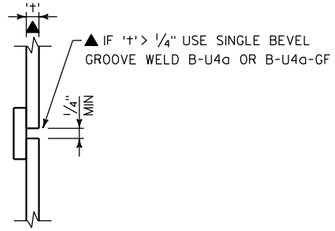
† SEAL ALL EXPOSED HORIZ & VERT SURFACES OF FILLER WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.

◐ SLOPE CONCRETE PAD DOWN ¾" FROM FRONT FACE OF ABUTMENT TO BACK OF CONCRETE COPING

(A07) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

(A08) SIZE 2 COARSE AGGREGATE OR MSE BACKFILL. COST IS INCLUDED IN THE BID ITEM "SLOPE PAVING CONCRETE".





CAST-IN-PLACE 'PIPE PILE' CIP PILE WELD DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY GLM | PLANS CK'D. KES

WEST ABUTMENT DETAILS

SHEET 6 OF 26

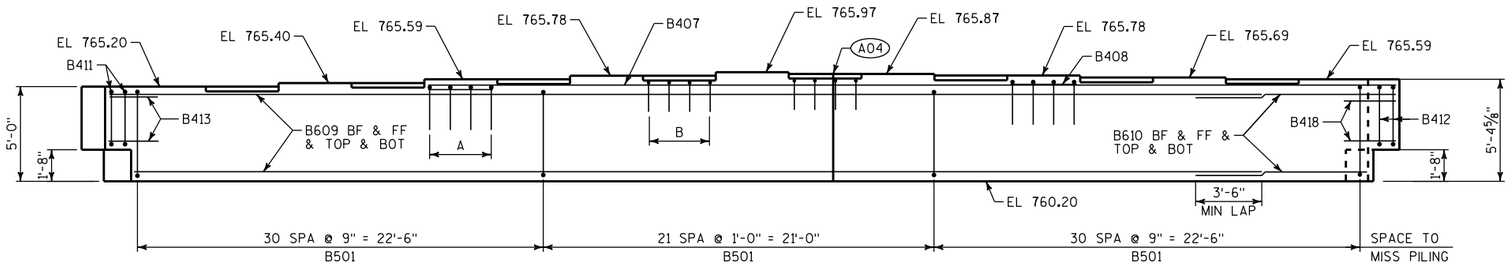
545

8

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STATE PROJECT NUMBER

1033-02-72

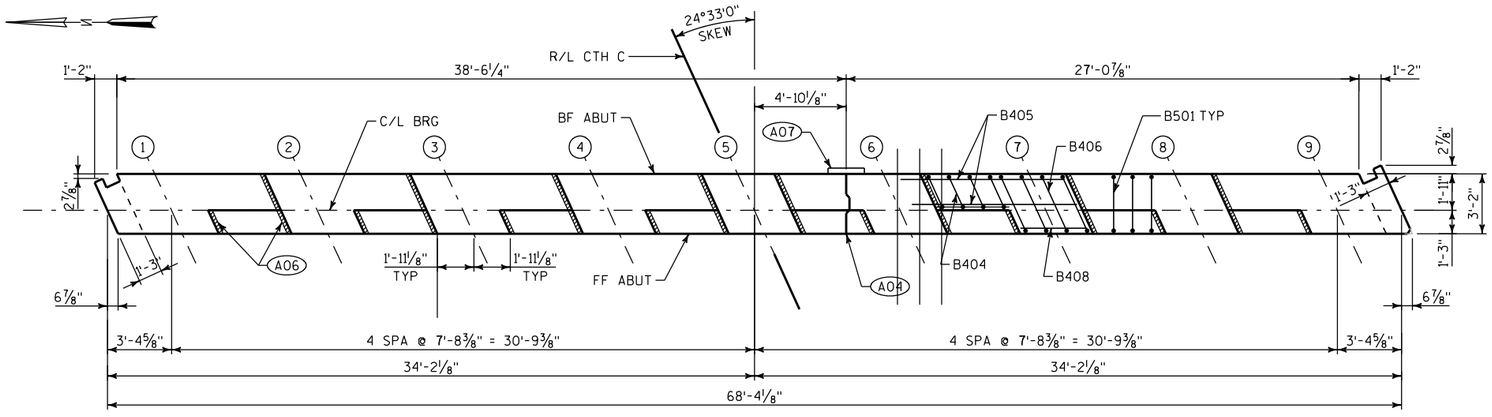


ELEVATION

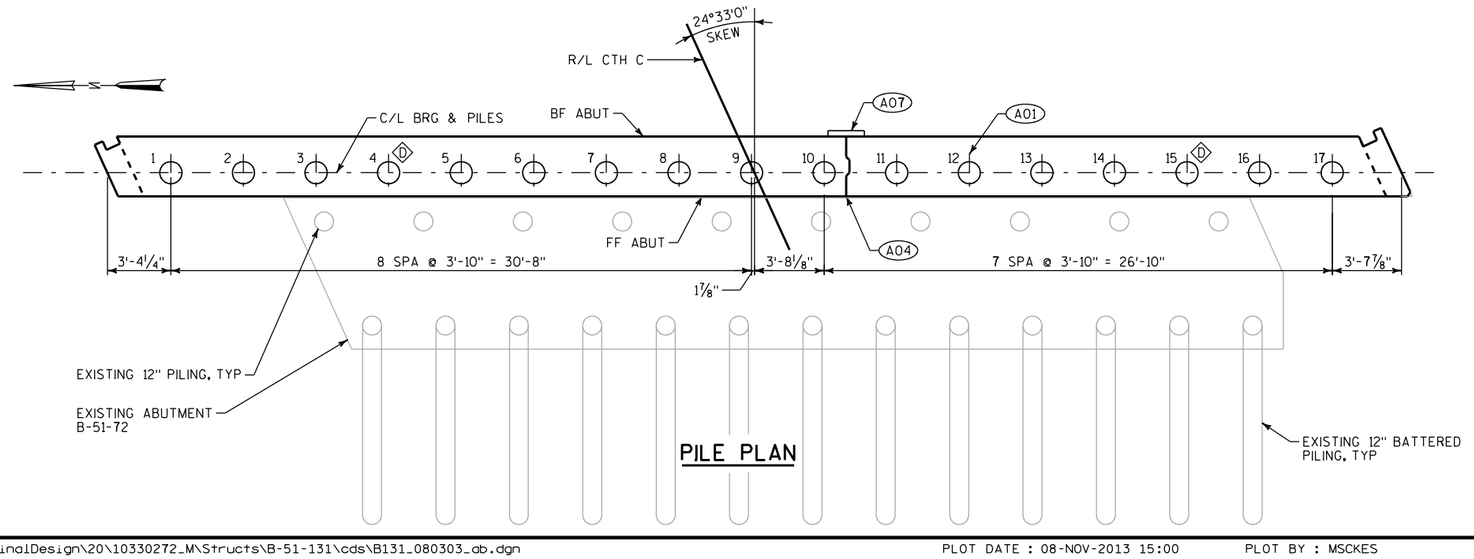
(LOOKING EAST)

A - 3 SPA @ 1'-1" = 3'-3", ADD'T B406 SEAT REINF REQ'D @ GIRDERS 3 THRU 9

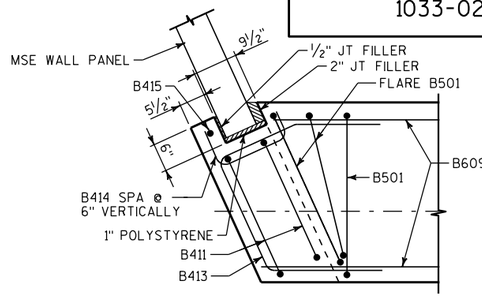
B - 3 SPA @ 1'-1" = 3'-3", B404 BETWEEN GIRDER SEATS



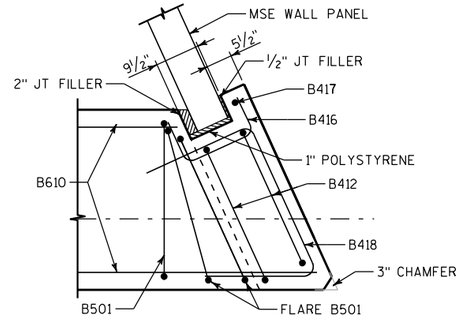
PLAN



PILE PLAN



ABUTMENT NORTH CORNER DETAIL



ABUTMENT SOUTH CORNER DETAIL

NOTES:

(A01) 14" DIA CIP CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD. ESTIMATED PILE LENGTH = 75 FEET.

NOTE - PROPOSED PILES MAY BE MOVED UP TO 8" ALONG THE C/L BRG & PILES TO AVOID CONFLICTS WITH EXISTING PILES. IF GREATER ADJUSTMENT IS NECESSARY, CONTACT THE ENGINEER FOR ADDITIONAL INSTRUCTIONS BEFORE PROCEEDING.

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(A04) KEYED CONST JOINT FORMED BY BEVELED 2" x 8".

(A06) ¾" CORK FILLER ON VERT BEAM SEAT FACES, TYP.

(A07) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

◇D DYNAMIC PILE LOAD TESTING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY GLM | PLANS CK'D. KES

EAST ABUTMENT

SHEET 7 OF 26

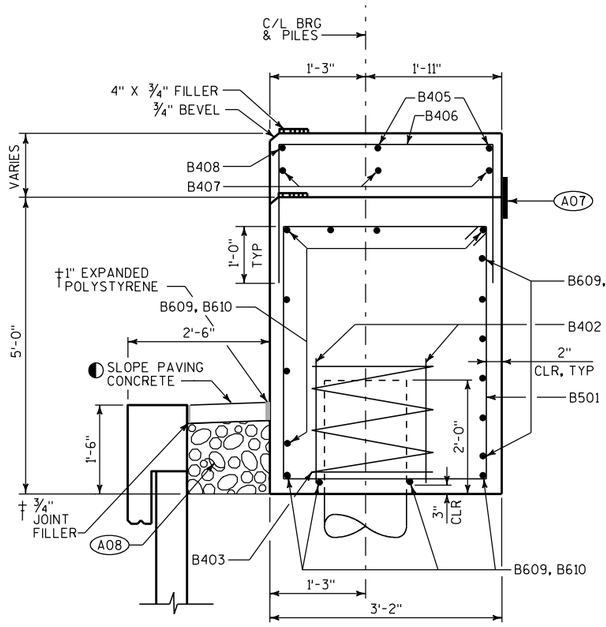
546

8

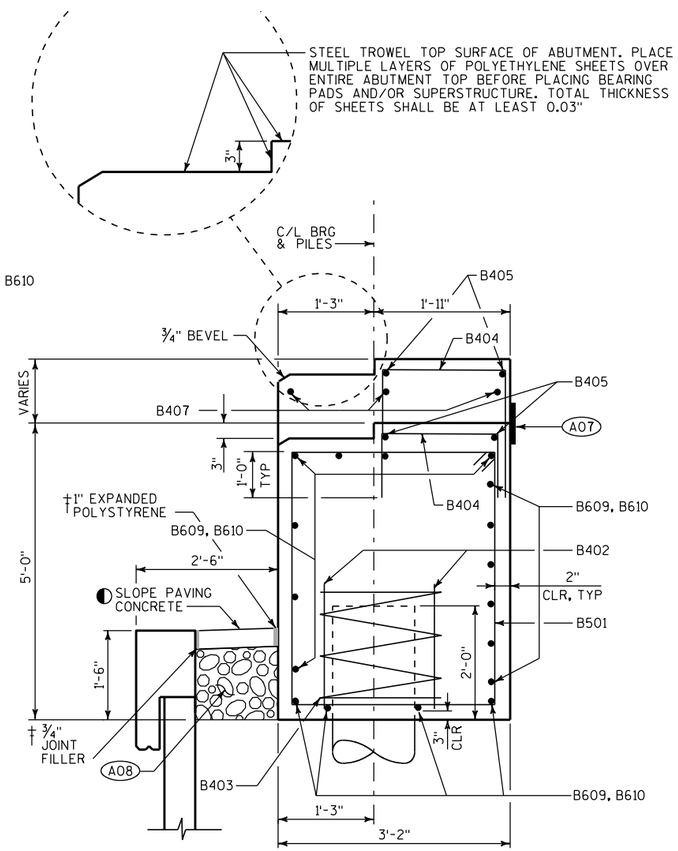
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STATE PROJECT NUMBER
1033-02-72



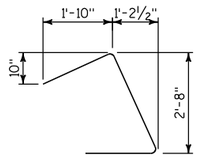
SECTION THRU BODY
(AT GIRDER SEATS)



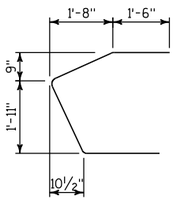
SECTION THRU BODY
(BETWEEN GIRDER SEATS)

BILL OF BARS

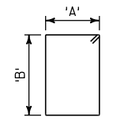
BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B501	X	86	14'-11"	X		ABUTMENT BODY STIRRUPS
B402	X	34	2'-3"			ABUTMENT PILES VERTICAL - 2 PER PILE
B403	X	17	28'-0"	X		ABUTMENT PILES SPIRAL - 1 PER PILE
B404	X	32	4'-11"	X		ABUTMENT BODY TOP - BWTN BEAM SEATS
B405	X	16	9'-6"			ABUT BODY TOP - HORIZ BWTN BEAM SEATS
B406	X	28	6'-3"	X		ABUT BODY TOP - UNDER GIRS 3-9
B407	X	6	26'-6"			ABUT BODY TOP - HORIZ UNDER GIRS 3-9
B408	X	7	3'-6"			ABUT BODY TOP - BEAM SEAT FF GIRS 3-9
B609	X	17	60'-0"			ABUTMENT BODY HORIZONTAL
B610	X	17	11'-6"			ABUTMENT BODY HORIZONTAL
B411	X	2	10'-8"	X		ABUTMENT BODY NE END STIRRUPS
B412	X	2	6'-1"	X		ABUTMENT BODY SE END STIRRUPS
B413	X	3	7'-4"	X		ABUTMENT BODY - HORIZ ENDS
B414	X	7	2'-0"	X		ABUTMENT BODY @ NOTCH
B415	X	1	3'-0"			ABUTMENT BODY @ NOTCH - VERTICAL
B416	X	7	2'-2"	X		ABUTMENT BODY @ NOTCH
B417	X	1	3'-4"			ABUTMENT BODY @ NOTCH - VERTICAL
B418	X	3	7'-0"	X		ABUTMENT BODY - HORIZ ENDS



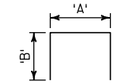
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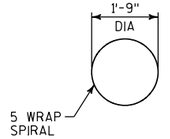
B413



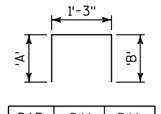
BAR MARK	DIM. 'A'	DIM. 'B'
B501	2'-10"	4'-4"
B411	3'-3"	3'-0""
B412	2'-10"	2'-11"



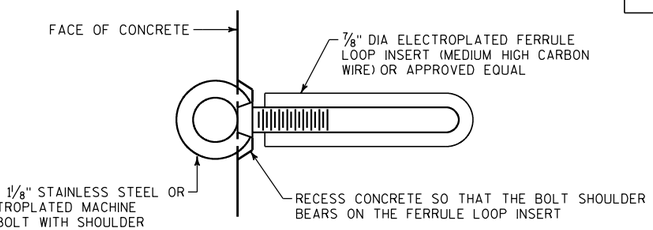
BAR MARK	DIM. 'A'	DIM. 'B'
B404	1'-9"	1'-8"
B406	3'-1"	1'-8"



B403

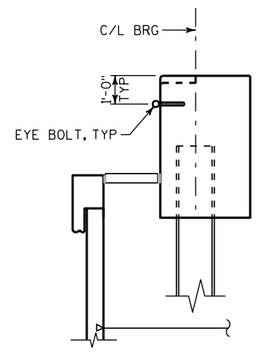


BAR MARK	DIM. 'A'	DIM. 'B'
B414	6½"	4½"
B416	6½"	6½"

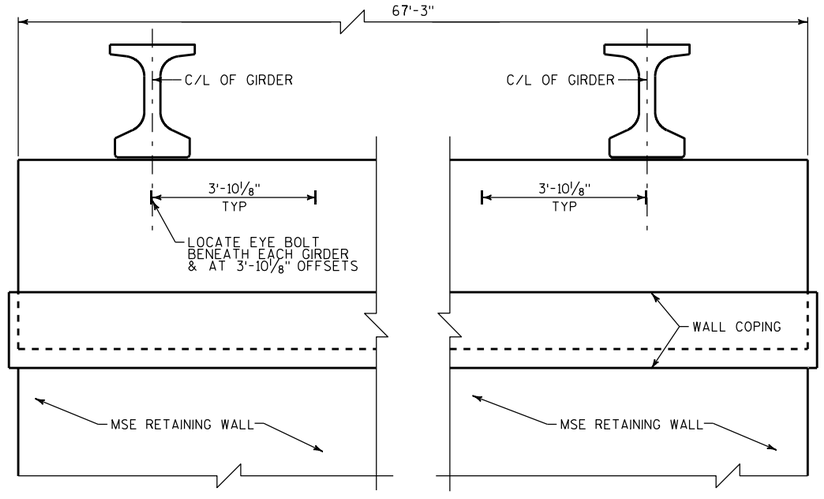


EYE BOLT DETAIL

EYE BOLTS AND FERRULE LOOP INSERTS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES". MINIMUM STRENGTH OF EYE BOLT AND LOOP INSERT IS 3500 LB.



SECTION THRU ABUT
(SHOWING FALL PROTECTION - LOOKING NORTH)



ABUTMENT ELEVATION
(SHOWING FALL PROTECTION - LOOKING EAST)

LEGEND

- † SEAL ALL EXPOSED HORIZ & VERT SURFACES OF FILLER WITH NON-STAINING, GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.
- ◐ SLOPE CONCRETE PAD DOWN ¾" FROM FRONT FACE OF ABUTMENT TO BACK OF CONCRETE COPING
- (A07) 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- (A08) SIZE 2 COARSE AGGREGATE OR MSE BACKFILL. COST IS INCLUDED IN THE BID ITEM "SLOPE PAVING CONCRETE".

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STRUCTURE B-51-131

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EAST ABUTMENT DETAILS

SHEET 8 OF 26

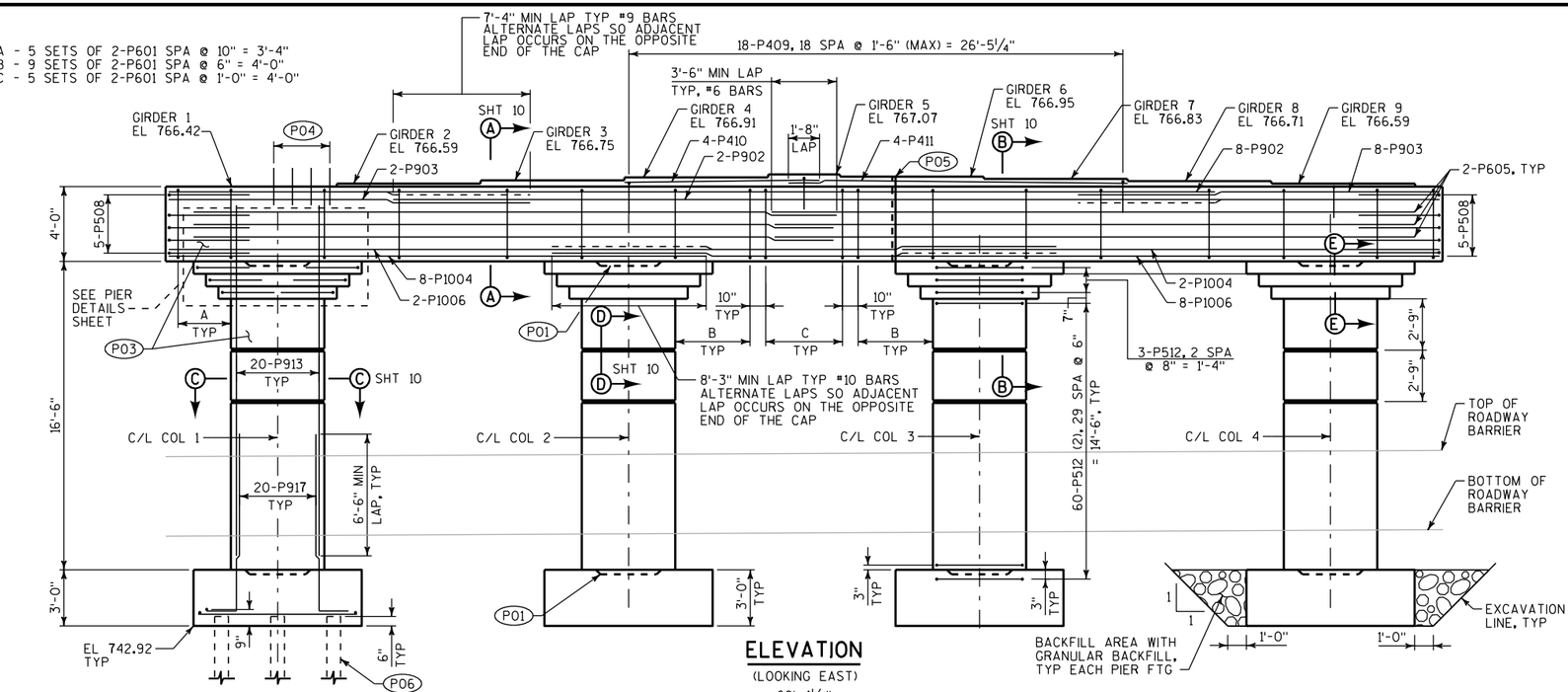
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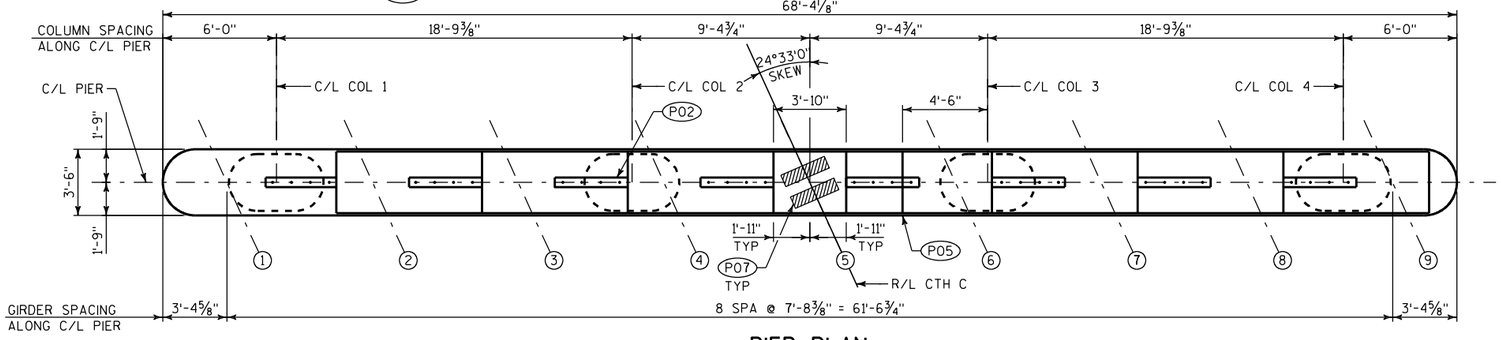
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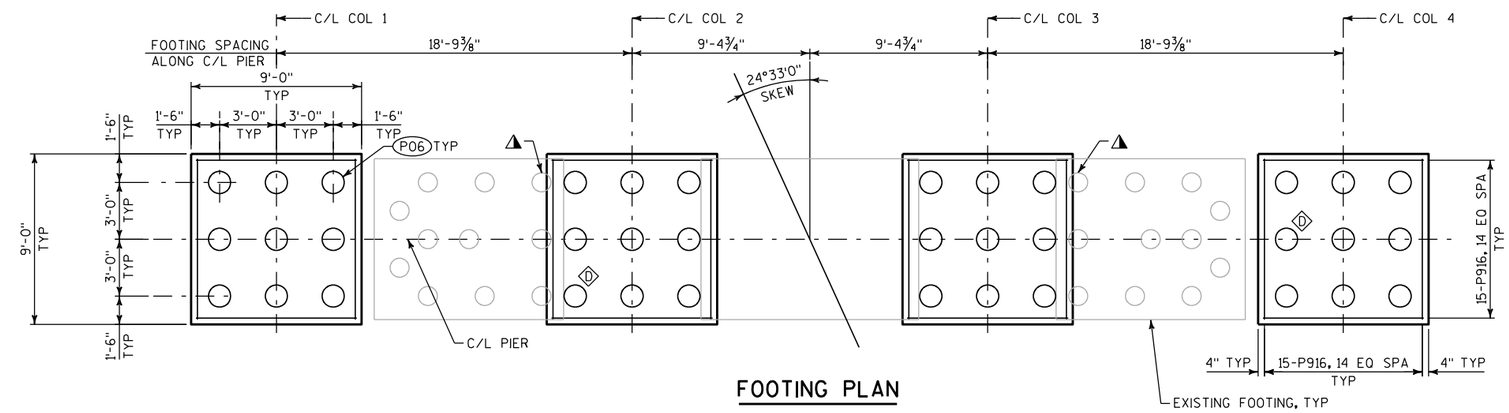
A - 5 SETS OF 2-P601 SPA @ 10" = 3'-4"
B - 9 SETS OF 2-P601 SPA @ 6" = 4'-0"
C - 5 SETS OF 2-P601 SPA @ 1'-0" = 4'-0"



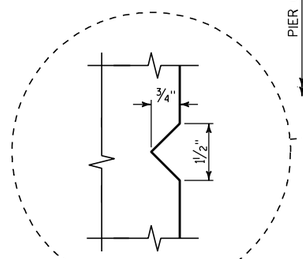
ELEVATION
(LOOKING EAST)

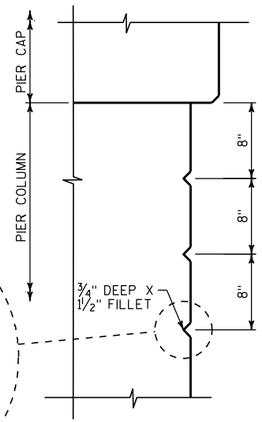


PIER PLAN



FOOTING PLAN





SECTION E-E

NOTES

(P01) KEYED CONSTRUCTION JOINT FORMED BY SURFACED BEVELED 3"x1'-2"x3'-6", TYPICAL TOP AND BOTTOM OF ALL COLUMNS.

(P02) KEYED CONSTRUCTION JOINT FORMED BY A SURFACED BEVELED 2"x6" BETWEEN BEAM SEATS.

(P03) FOR CONCRETE STAINING DETAILS, SEE SHEET 25.

(P04) P507 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONCRETE)

(P05) VERT. CONST. JOINT FORMED BY SURFACED BEVELED 2" x 6" x 2'-0" KEYWAY

(P06) 14" DIA CIP CONCRETE PILING WITH A REQUIRED DRIVING RESISTANCE OF 130 TONS PER PILE AS DETERMINED BY THE PDA/CAPWAP ACCEPTANCE METHOD.
ESTIMATED PILE LENGTH = 60 FEET.

NOTE - PROPOSED PILES MAY BE MOVED UP TO 8" ALONG THE C/L BRG & PILES TO AVOID CONFLICTS WITH EXISTING PILES. IF GREATER ADJUSTMENT IS NECESSARY, CONTACT THE ENGINEER FOR ADDITIONAL INSTRUCTIONS BEFORE PROCEEDING.

LOCATION OF EXISTING PILES IS SHOWN BASED ON AS-BUILT INFORMATION ONLY. FIELD VERIFY PILE LOCATIONS IMMEDIATELY AFTER EXPOSURE AND NOTIFY THE ENGINEER OF ANY DEVIATIONS NOTED.

(P07) ½" THICK ELASTOMERIC BEARING PAD, SEE SHEET 16 FOR DETAILS.

ELEVATIONS ARE GIVEN AT THE TOP OF THE CONCRETE AT THE INTERSECTION OF THE C/L GIRDER AND C/L PIER.

▲ CUT OFF PILING IN EXISTING FOOTING THAT IS IN THE FOOTPRINT OF THE PROPOSED FOOTING 6" BELOW BOTTOM OF PROPOSED FOOTING. DO NOT INCORPORATE EXISTING PILING INTO PROPOSED FOOTING.

◇D DYNAMIC PILE LOAD TESTING

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PIER

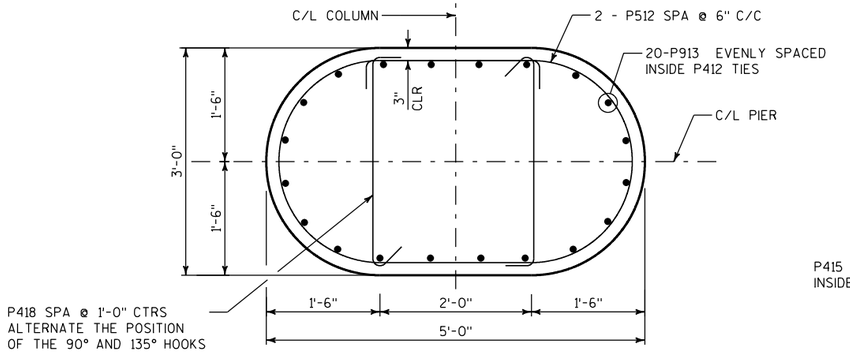
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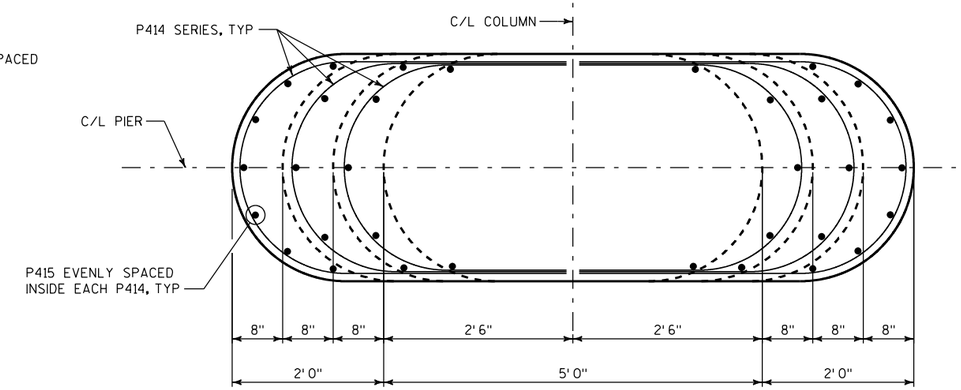
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SECTION C-C

TYPICAL COLUMN SECTION



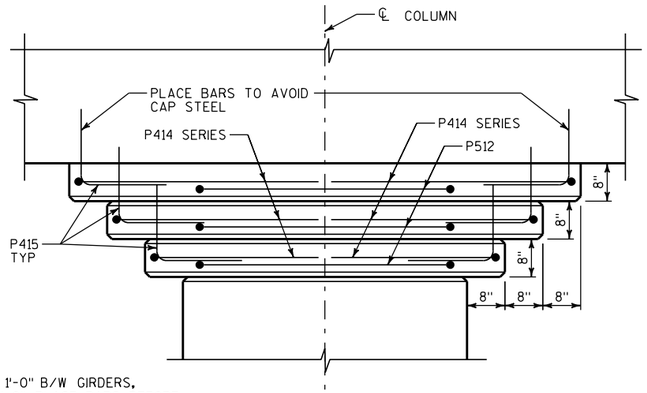
SECTION THRU COLUMN

COLUMN DETAILS AT CAPITALS
COLUMN STEEL NOT SHOWN FOR CLARITY

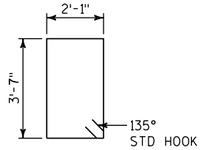
BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
P601	X	158	12'-2"	X		PIER CAP STIRRUPS
P902	X	10	56'-0"			PIER CAP TOP
P903	X	10	19'-5"			PIER CAP TOP
P1004	X	10	28'-9"			PIER CAP BOTTOM
P605	X	12	34'-3"			PIER CAP SIDES
P1006	X	10	47'-6"			PIER CAP BOTTOM
P507	X	32	2'-0"			DIAPHRAGM DOWELS
P508	X	10	9'-11"	X		PIER CAP ENDS
P409	X	18	6'-0"	X		CAP BEAM SEAT
P410	X	4	10'-9"			CAP BEAM SEAT - NORTH
P411	X	4	18'-5"			CAP BEAM SEAT - SOUTH
P512	X	252	15'-3"	X		COLUMN STIRRUPS
P913	X	80	19'-5"			COLUMN - VERTICAL
P414	X	24	8'-7"	X	⚠	COLUMN CAPITAL - HORIZONTAL
P415	X	136	2'-11"	X		COLUMN CAPITAL - VERTICAL
P916		120	8'-6"			FOOTING - HORIZONTAL
P917	X	80	10'-4"	X		FOOTING DOWELS
P418	X	120	3'-2"	X		COLUMN - HORIZONTAL TIE

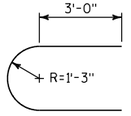
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



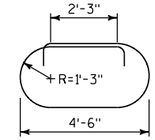
CAPITAL DETAIL



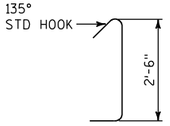
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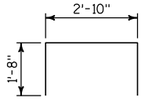
P508



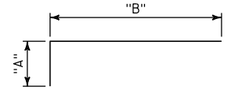
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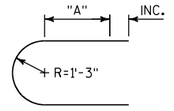
P418



P409



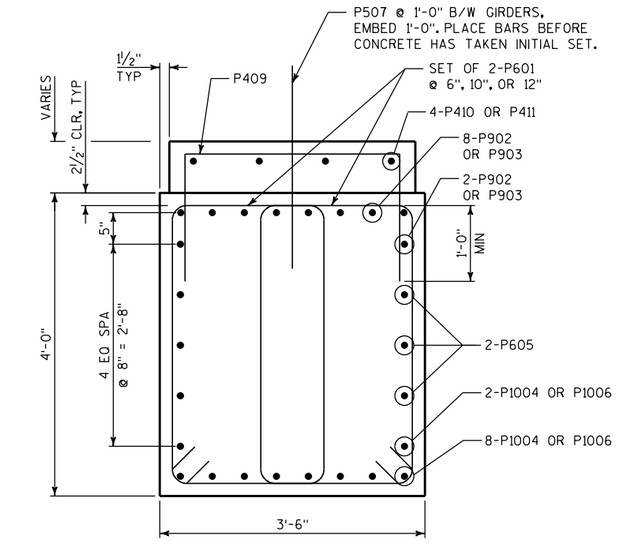
MARK	"A"	"B"
P415	1'-6"	1'-6"
P917	1'-7"	9'-0"



P414

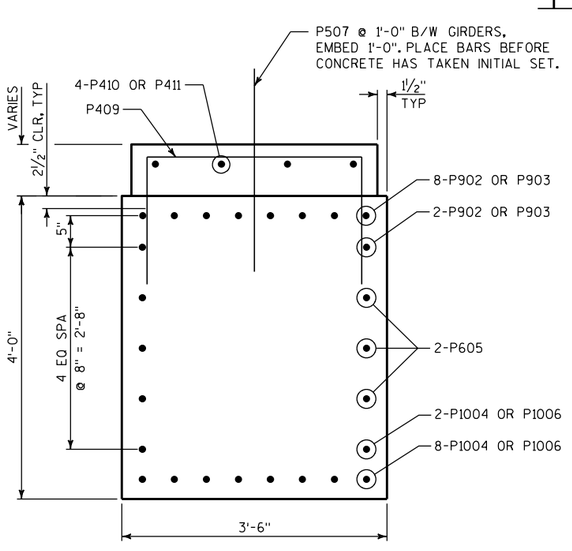
BAR MARK	NO. REQ'D	"A"	INC.	LENGTH
P414	8 SERIES OF 3	1'-8" TO 3'-0"	8"	7'-3" TO 9'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY



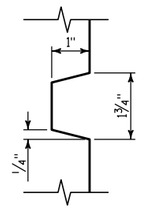
SECTION A-A

PIER CAP SECTION MIDDLE SPAN B/W COLUMNS



SECTION B-B

PIER CAP SECTION OVER COLUMN



SECTION D-D

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PIER DETAILS

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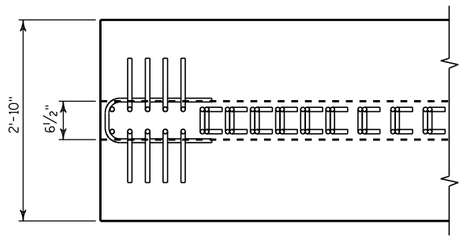
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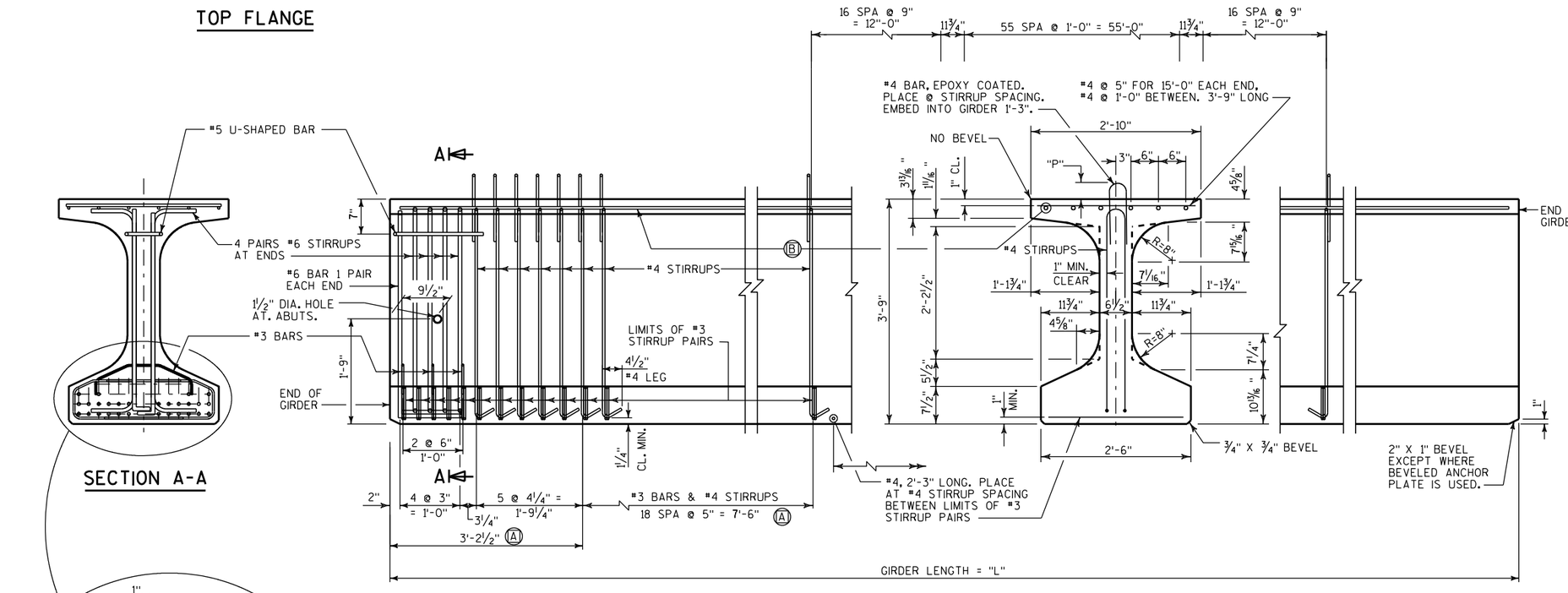
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TOP FLANGE

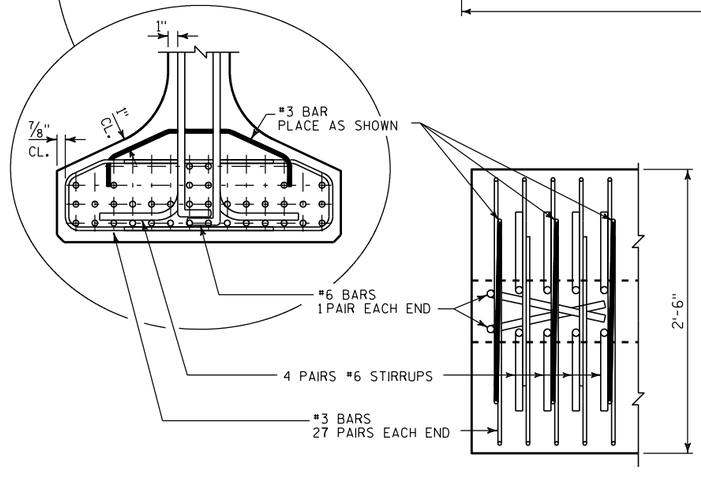


SECTION A-A

SIDE VIEW & TYP. SECTION IN SPAN

(A) DETAIL TYP. AT EACH END

(B) 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-8"



BOTTOM FLANGE

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY FOR BONDING TO THE SLAB, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

PRESTRESSING STRANDS SHALL BE 0.6"Φ - 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI AND SHALL BE FLUSH WITH THE ENDS OF THE GIRDER.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS, SEE "STEEL DIAPHRAGM" SHEET.

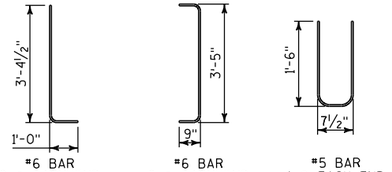
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

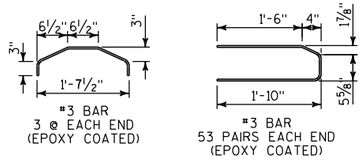
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT. IF THE FABRICATOR WANTS TO BUILD A BAR STEEL CAGE BY WELDING LONGITUDINAL REINFORCEMENT TO THE #4 STIRRUPS, THE FOLLOWING OPTION IS AVAILABLE:

1. USE ASTM A706, GRADE 60 REINFORCEMENT AND THE STIRRUP SPACING AS SHOWN ON THE PLANS.

   AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

   WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM A497.





* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	CONC. STRGTH. f'c (P.S.I.)	"P"	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
1	102'-4½"	5⁄8"	1¼"	1⅝"	1⅞"	2"	8000	7"	0.6	30	6800	40	13	16	4"
2	102'-4½"	5⁄8"	1¼"	1⅝"	1⅞"	2"	8000	7"	0.6	30	6800	40	13	16	4"

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DEPARTMENT OF TRANSPORTATION

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45W" PRESTRESSED GIRDER

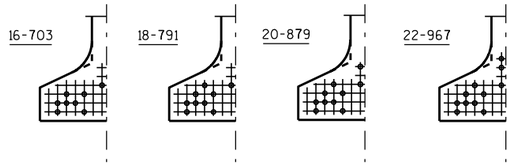
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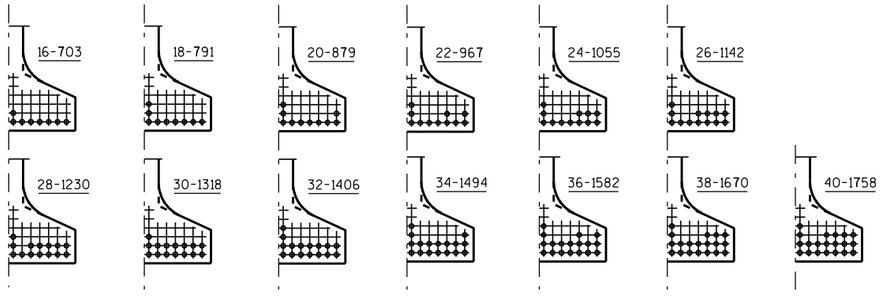
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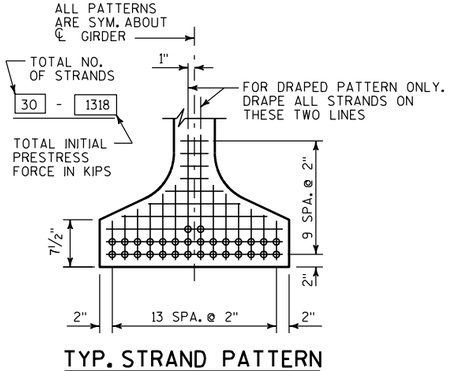
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"φ STRANDS



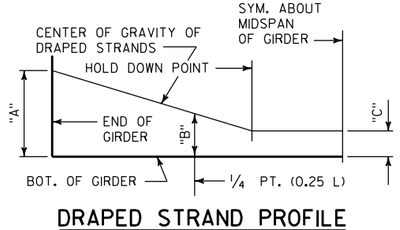
ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6" DIA. STRANDS



TYP. STRAND PATTERN

0.6" DIA. STRANDS



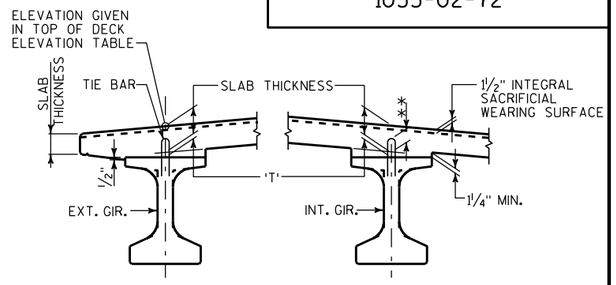
DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	3⅛"
2	3⅛"

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T'. USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



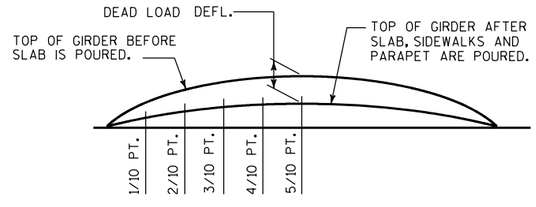
SLAB HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- SLAB THICKNESS
= HAUNCH HEIGHT 'T'



DEAD LOAD DEFLECTION DIAGRAM

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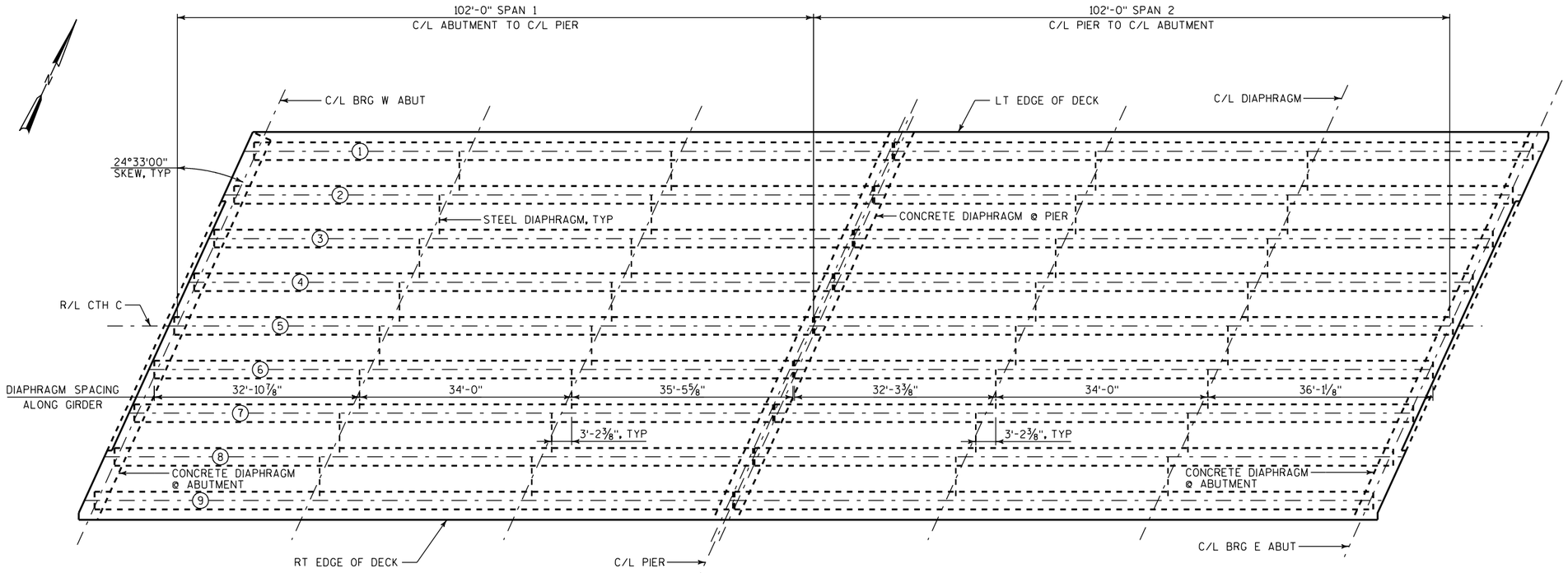
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45W" PRESTRESSED GIRDER DETAILS

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FRAMING PLAN

TOP OF DECK ELEVATIONS

	W. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	E. ABUT.
EDGE OF DECK	771.56	771.57	771.57	771.56	771.54	771.51	771.47	771.42	771.37	771.30	771.23	771.15	771.06	770.96	770.85	770.73	770.60	770.47	770.32	770.17	770.00
GIRDER 1	771.60	771.61	771.61	771.60	771.58	771.55	771.52	771.47	771.41	771.35	771.28	771.20	771.11	771.01	770.90	770.78	770.65	770.52	770.37	770.22	770.06
EDGE OF SIDEWALK	771.72	771.73	771.73	771.72	771.71	771.68	771.65	771.60	771.55	771.49	771.42	771.34	771.25	771.15	771.05	770.93	770.81	770.67	770.53	770.38	770.22
GIRDER 2	771.74	771.75	771.75	771.74	771.73	771.70	771.67	771.62	771.57	771.51	771.44	771.36	771.27	771.18	771.07	770.96	770.83	770.70	770.56	770.41	770.25
GIRDER 3	771.87	771.89	771.89	771.89	771.87	771.85	771.82	771.78	771.73	771.67	771.60	771.53	771.44	771.35	771.25	771.13	771.01	770.88	770.74	770.60	770.44
GIRDER 4	772.01	772.02	772.03	772.03	772.02	772.00	771.97	771.93	771.89	771.83	771.77	771.69	771.61	771.52	771.42	771.31	771.19	771.07	770.93	770.78	770.63
GIRDER 5 / CROWN	772.14	772.16	772.17	772.17	772.16	772.15	772.12	772.09	772.04	771.99	771.93	771.86	771.78	771.69	771.59	771.49	771.37	771.25	771.11	770.97	770.82
GIRDER 6	771.99	772.01	772.03	772.03	772.03	772.01	771.99	771.96	771.92	771.87	771.81	771.74	771.66	771.58	771.48	771.38	771.27	771.15	771.02	770.88	770.73
GIRDER 7	771.84	771.87	771.88	771.89	771.89	771.88	771.86	771.83	771.79	771.74	771.69	771.62	771.55	771.47	771.37	771.27	771.16	771.04	770.92	770.78	770.64
GIRDER 8	771.70	771.72	771.74	771.75	771.75	771.74	771.72	771.70	771.66	771.62	771.57	771.50	771.43	771.35	771.26	771.17	771.06	770.94	770.82	770.68	770.54
EDGE OF SIDEWALK	771.67	771.70	771.72	771.73	771.73	771.72	771.71	771.68	771.64	771.60	771.55	771.49	771.42	771.34	771.25	771.15	771.04	770.93	770.80	770.67	770.53
GIRDER 9	771.54	771.57	771.60	771.61	771.61	771.61	771.59	771.57	771.53	771.49	771.44	771.38	771.32	771.24	771.15	771.06	770.95	770.84	770.72	770.59	770.45
EDGE OF DECK	771.50	771.53	771.55	771.57	771.57	771.57	771.55	771.53	771.50	771.46	771.41	771.35	771.28	771.21	771.12	771.03	770.92	770.81	770.69	770.56	770.42

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY GLM | PLANS CK'D. KES

SUPERSTRUCTURE

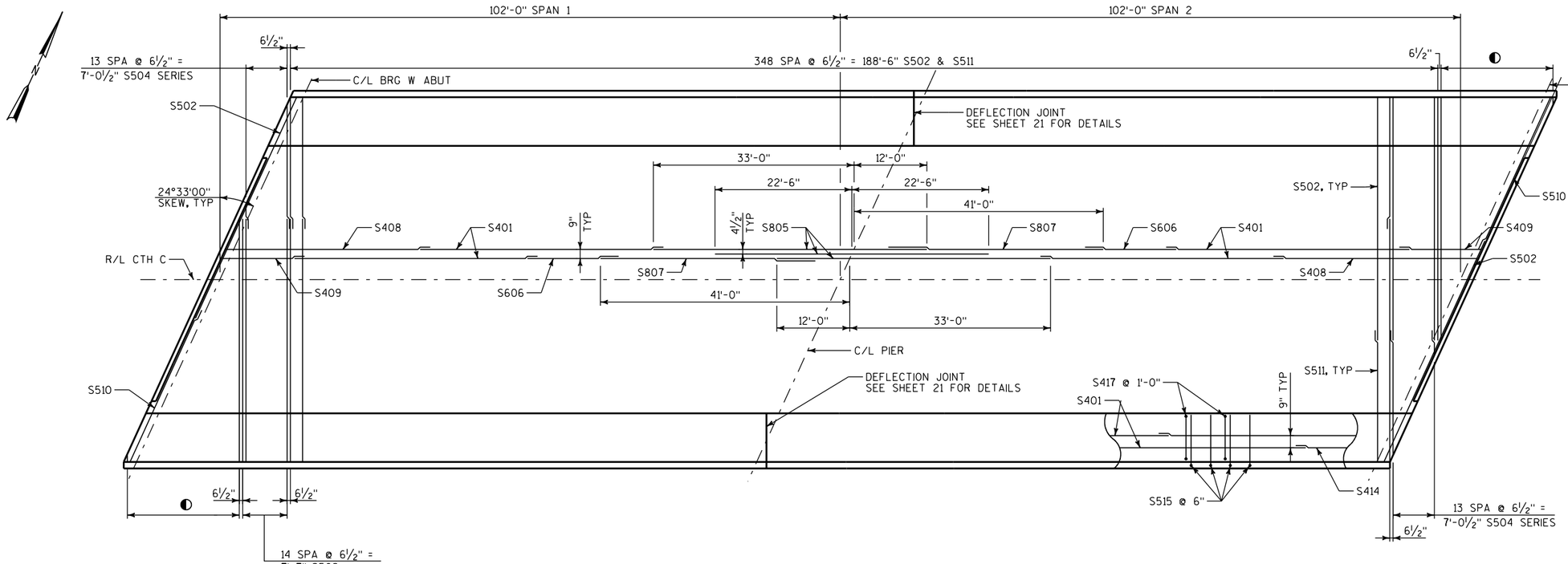
SHEET 13 OF 26

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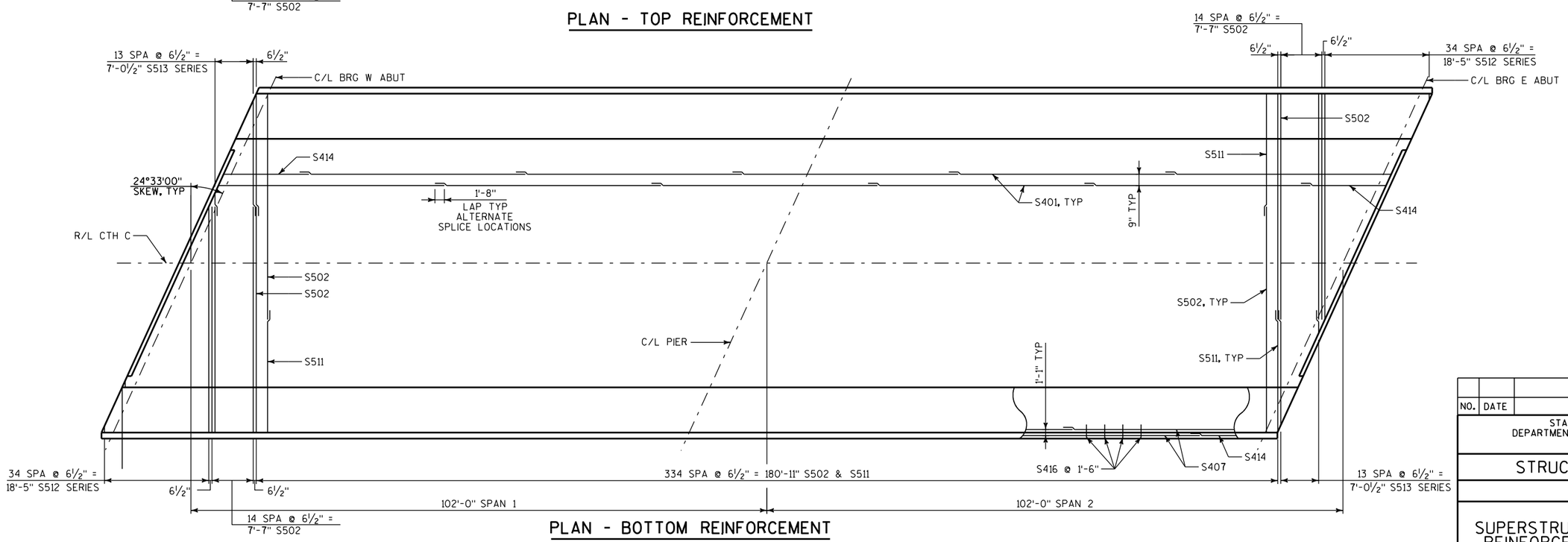
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STATE PROJECT NUMBER
1033-02-72



PLAN - TOP REINFORCEMENT



PLAN - BOTTOM REINFORCEMENT

◐ 33 SPA @ 6½" = 17'-10½" S503 SERIES

TABLE OF MIN LAP LENGTHS

BAR SIZE	LAP REQUIRED
NO. 4	1'-8"
NO. 5	2'-7"
NO. 6	3'-6"
NO. 8	6'-4"

SMALLER BAR CONTROLS LAP LENGTH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY GLM | PLANS CK'D. KES

SUPERSTRUCTURE REINFORCEMENT

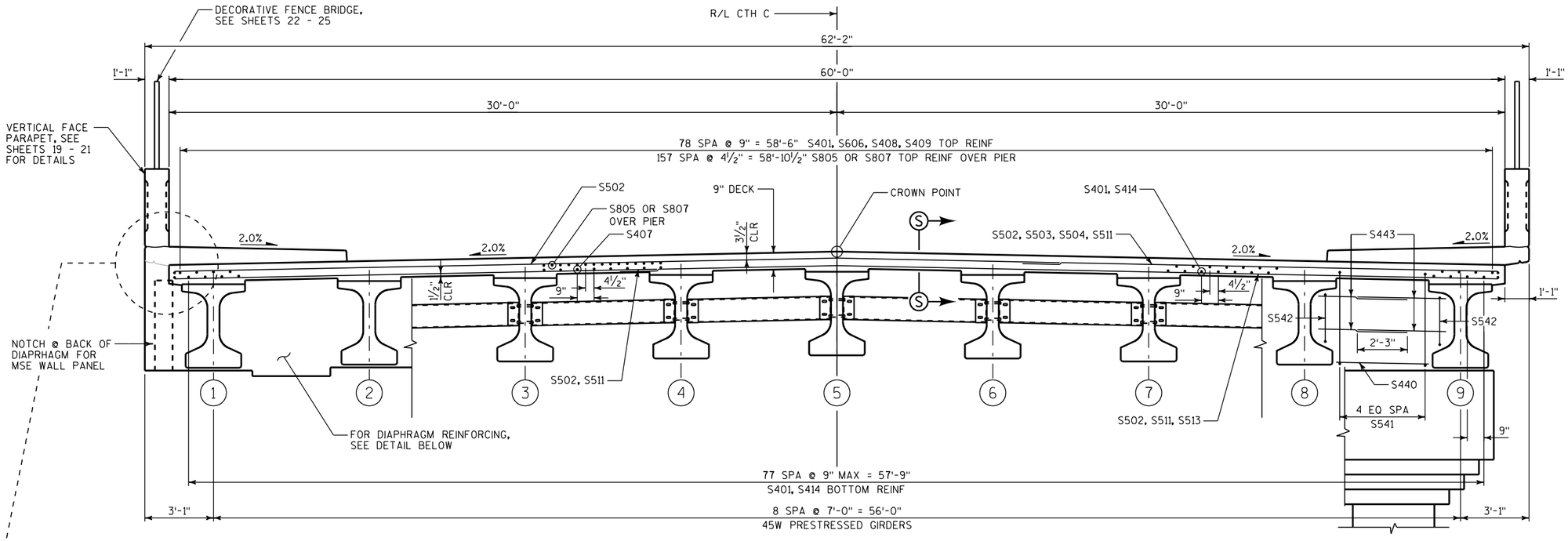
SHEET 14 OF 26

553

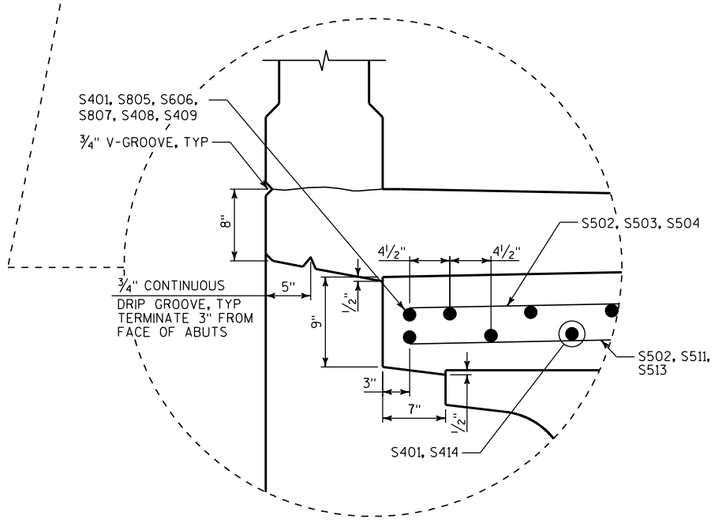
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STATE PROJECT NUMBER
1033-02-72

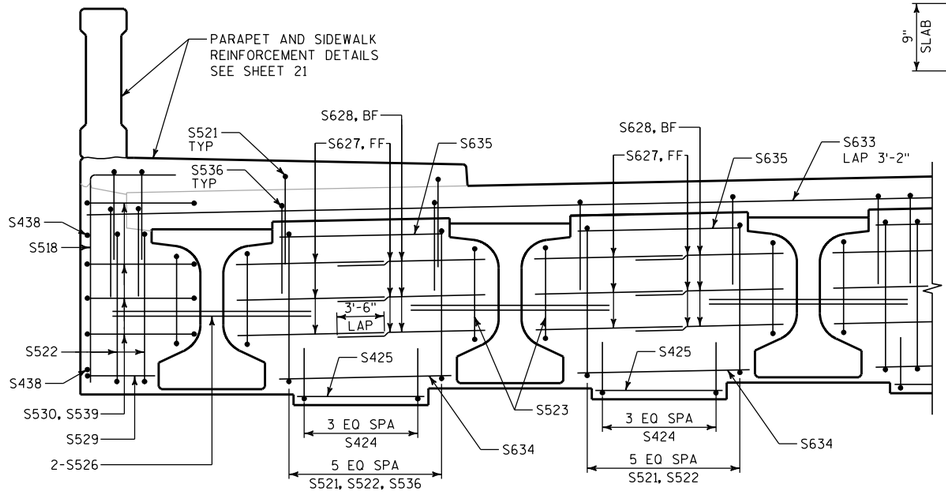


CONC DIAPH AT ABUT | **IN SPAN DIAPH** | **CONC DIAPH AT PIER**

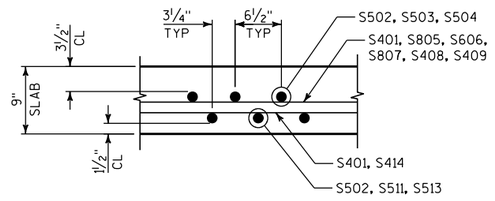


CROSS SECTION THRU ROADWAY

(LOOKING EAST)



CONC DIAPH AT ABUT



SECTION S-S

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY GLM | PLANS CK'D. KES

SUPERSTRUCTURE CROSS SECTION

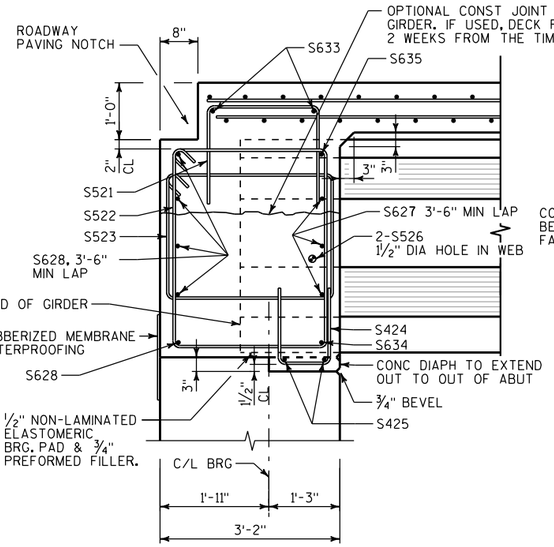
SHEET 15 OF 26

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8

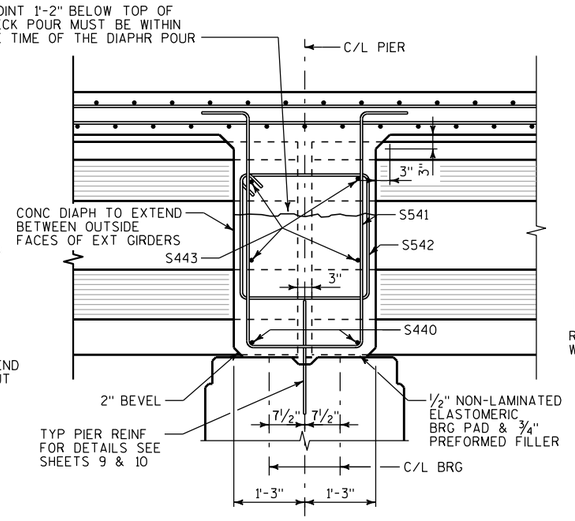
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STATE PROJECT NUMBER
1033-02-72



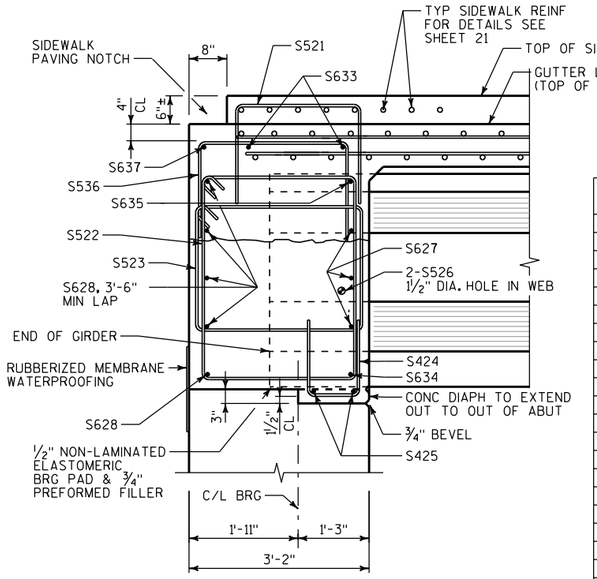
ABUTMENT DIAPHRAGM AT APPROACH SLAB

(NORMAL TO C/L BRGS)



AT PIER DIAPHRAGM

(NORMAL TO C/L BRGS)



ABUTMENT DIAPHRAGM AT SIDEWALK

(NORMAL TO C/L BRGS)

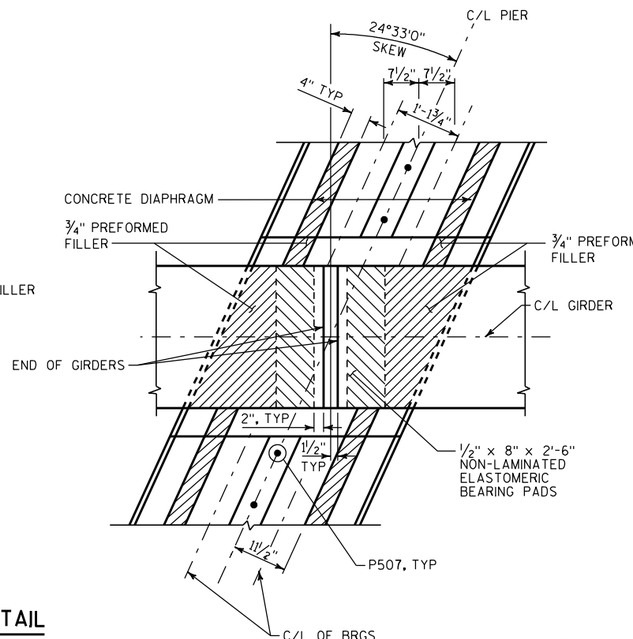
NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR.
THE FIRST OR FIRST TWO DIGITS
OF A BAR MARK SIGNIFIES THE BAR SIZE

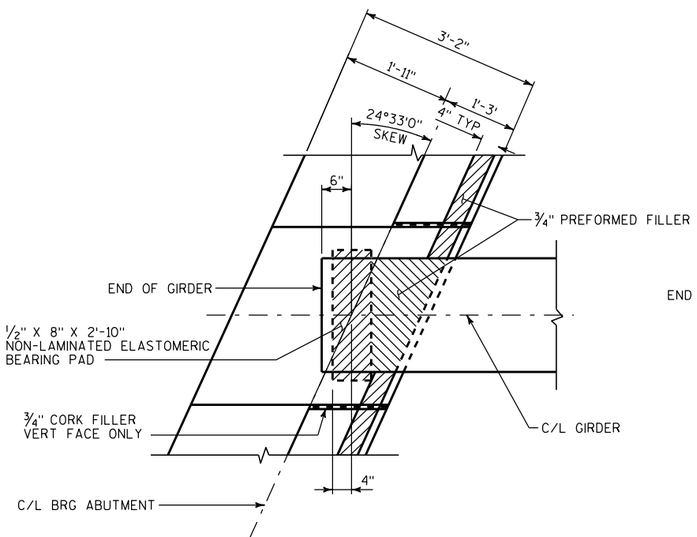
BILL OF BARS

BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	879	40'-0"			SLAB LONG T&B
S502	X	731	40'-0"			SLAB TRANSVERSE - TOP & BOTTOM
S503	X	68	20'-10"		⚠	SLAB TRANSVERSE - TOP
S504	X	28	12'-9"		⚠	SLAB TRANSVERSE - TOP
S805	X	161	45'-0"			SLAB LONGITUDINAL - OVER PIER
S606	X	81	15'-0"			SLAB LONGITUDINAL - TOP
S807	X	81	35'-4"			SLAB LONGITUDINAL - OVER PIER
S408	X	81	35'-0"			SLAB LONGITUDINAL - TOP
S409	X	81	15'-0"			SLAB LONGITUDINAL - TOP
S510	X	2	28'-7"			SLAB TRANSVERSE - TOP END
S511	X	670	22'-3"			SLAB TRANSVERSE - TOP & BOTTOM
S512	X	70	20'-10"		⚠	SLAB LONGITUDINAL - BOTTOM
S513	X	28	13'-2"		⚠	SLAB TRANSVERSE - BOTTOM
S414	X	110	16'-6"			SLAB LONG - BOT / SIDEWALK - T & B
S515	X	818	9'-4"	X		SIDEWALK TRANSVERSE - TOP
S416	X	274	2'-3"			SIDEWALK TRANSVERSE - BOTTOM
S417	X	410	10'-1"	X		SIDEWALK TRANSVERSE - TOP
S518	X	20	7'-6"	X		ABUT DIAPH VERTICAL @ ENDS
S519	X	418	7'-10"	X		SIDEWALK & PARAPET
S820	X	126	35'-0"			PARAPET LONGITUDINAL
S521	X	104	6'-2"	X		ABUTMENT DIAPHRAGM VERTICAL
S522	X	104	13'-8"	X		ABUTMENT DIAPHRAGM STIRRUP
S523	X	36	10'-9"	X		ABUTMENT DIAPHRAGM STIRRUP
S424	X	64	3'-4"	X		ABUTMENT DIAPHRAGM VERTICAL
S425	X	32	3'-5"			ABUTMENT DIAPHRAGM HORIZONTAL
S526	X	36	6'-0"			ABUT DIAPHRAGM HORIZONTAL @ GIRDERS
S627	X	96	5'-3"			ABUTMENT DIAPHRAGM HORIZONTAL FF
S628	X	20	35'-9"			ABUTMENT DIAPHRAGM HORIZONTAL BF
S529	X	3	4'-10"	X		ABUTMENT DIAPH HORIZ OUTSIDE GIRDERS
S530	X	9	10'-10"	X		ABUTMENT DIAPH STIRRUP OUTSIDE GIRDERS
S431	X	28	2'-2"	X		ABUTMENT DIAPHRAGM @ NOTCH
S432	X	8	5'-1"			ABUTMENT DIAPHRAGM VERTICAL @ NOTCH
S633	X	8	35'-10"			ABUTMENT DIAPHRAGM HORIZONTAL
S634	X	16	4'-8"			ABUTMENT DIAPHRAGM HORIZONTAL
S635	X	16	4'-4"			ABUTMENT DIAPHRAGM HORIZONTAL
S536	X	32	6'-9"	X		ABUTMENT DIAPHRAGM VERTICAL
S637	X	4	11'-0"			ABUTMENT DIAPHRAGM HORIZONTAL SIDEWALK
S438	X	2	2'-10"			NW ABUTMENT DIAPHRAGM HORIZONTAL
S539	X	3	3'-11"	X		NW ABUTMENT DIAPHRAGM STIRRUP
S440	X	16	4'-8"			PIER DIAPHRAGM HORIZONTAL
S541	X	40	11'-11"	X		PIER DIAPHRAGM VERTICAL
S542	X	18	9'-3"	X		PIER DIAPHRAGM STIRRUP
S443	X	64	4'-5"			PIER DIAPHRAGM HORIZONTAL

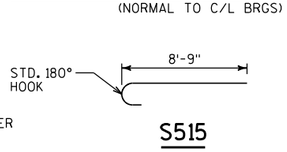
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

PART LONGIT SECTION



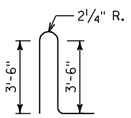


BEARING PAD DETAIL

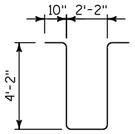


S515

BAR MARK	DIM 'A'	DIM 'B'
S522	3'-7"	2'-11"
S523	2'-2"	2'-11"
S539	2'-4"	1'-1"
S542	2'-2"	2'-2"



S519

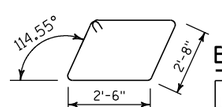


S541

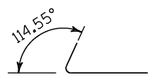
BAR MARK	DIM 'A'	DIM 'B'
S521	2'-0"	2'-4"
S424	1'-3"	1'-0"
S431	6½"	1'-3"
S536	2'-0"	2'-11"



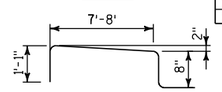
S518



S530



S529



S417

BAR SERIES TABLE

BAR MARK	NO. OF SERIES	LENGTH
S503	2 SERIES OF 34	1'-0" TO 40'-8"
S504	2 SERIES OF 14	5'-3" TO 20'-3"
S512	2 SERIES OF 35	11" TO 40'-8"
S513	2 SERIES OF 14	5'-10" TO 20'-6"

BUNDLE AND TAG EACH SERIES SEPARATELY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY GLM | PLANS CK'D. KES

SUPERSTRUCTURE DETAILS

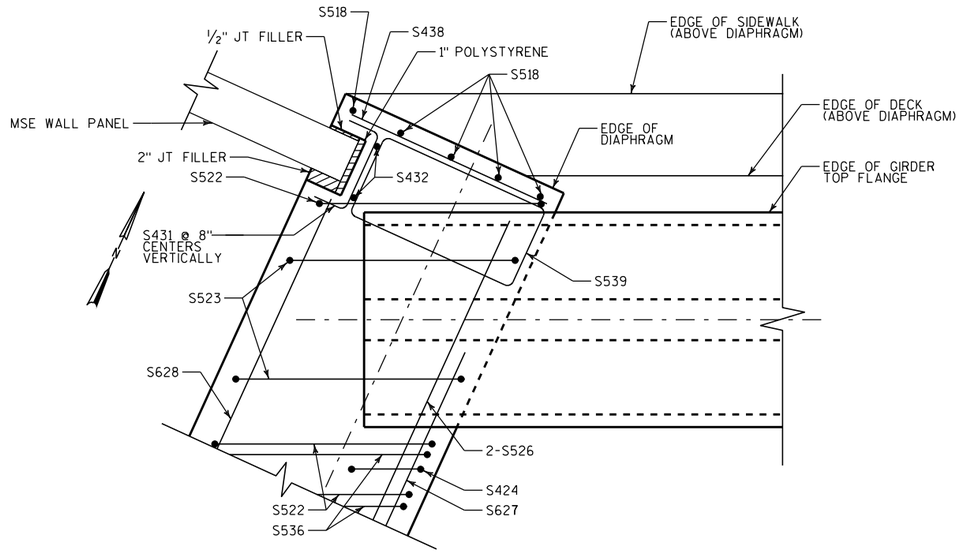
SHEET 16 OF 26

555

8

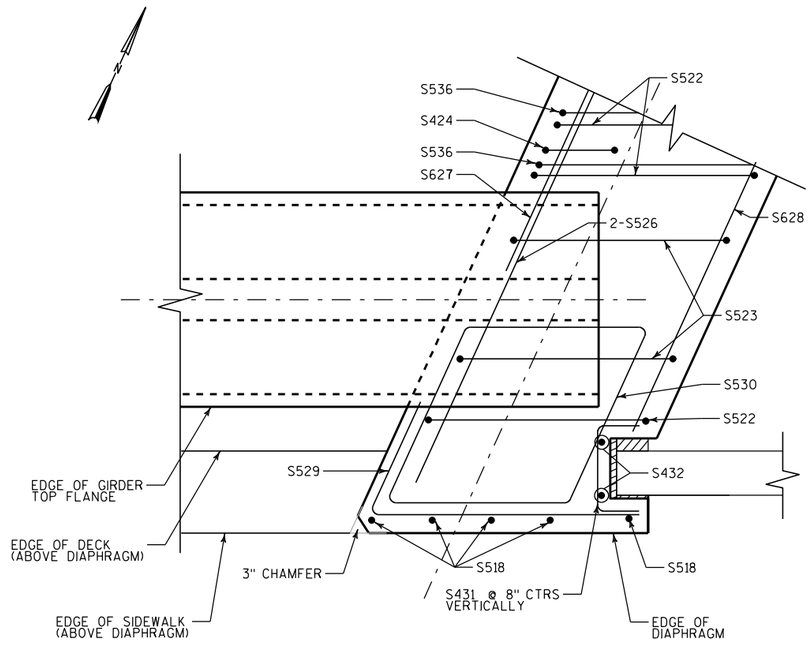
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STATE PROJECT NUMBER
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ABUTMENT DIAPHRAGM

NORTHWEST END



ABUTMENT DIAPHRAGM

SOUTHEAST END SHOWN
SOUTHWEST & NORTHEAST ENDS SIMILAR

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY	GLM	PLANS CK'D.	KES

SUPERSTRUCTURE DETAILS

SHEET 17 OF 26

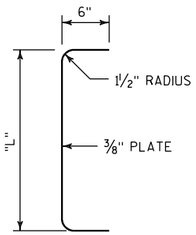
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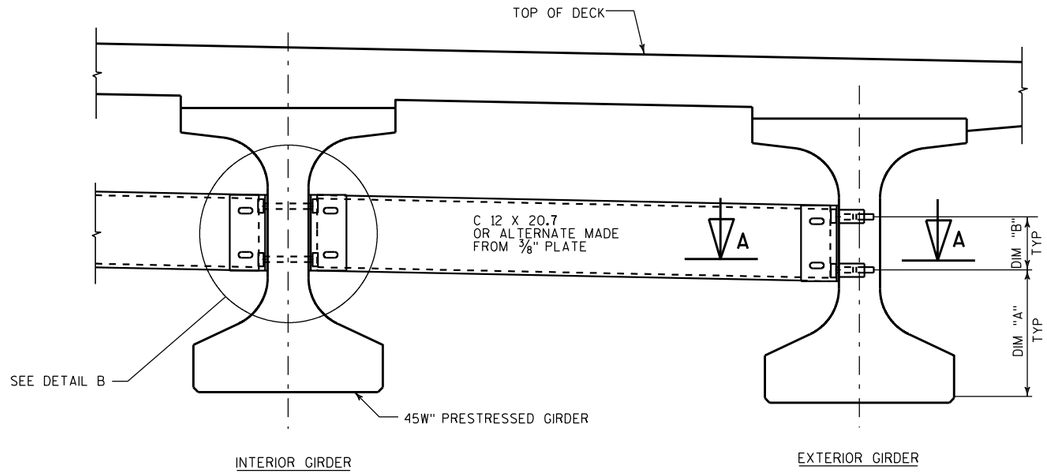
STATE PROJECT NUMBER
1033-02-72

TABLE

GIRDER HEIGHT	DIM. "A"	DIM. "B"	DIM. "L"	* DIM. "X"
45W"	1'-9 1/8"	8 7/8"	1'-0 1/2"	2 3/4"



SECTION THRU ALTERNATE DIAPHRAGM



PART TRANSVERSE SECTION AT DIAPHRAGM

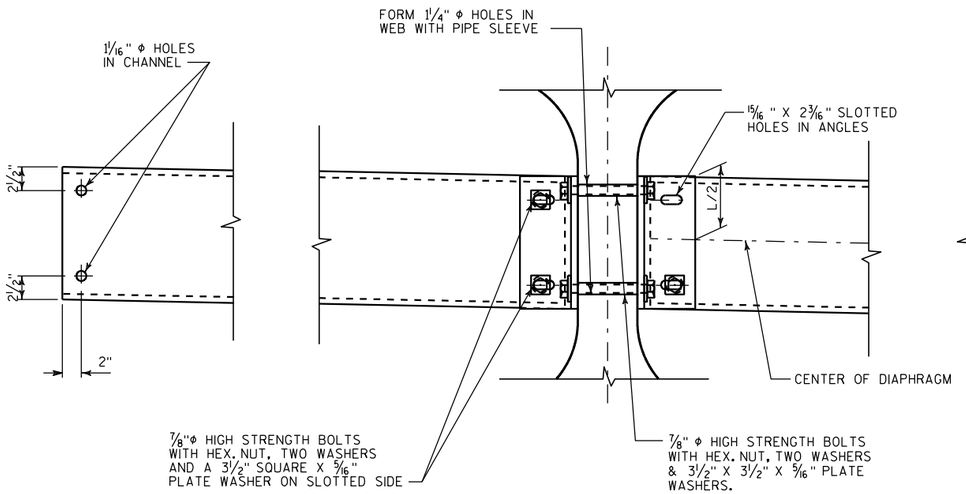
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-51-131", EACH.

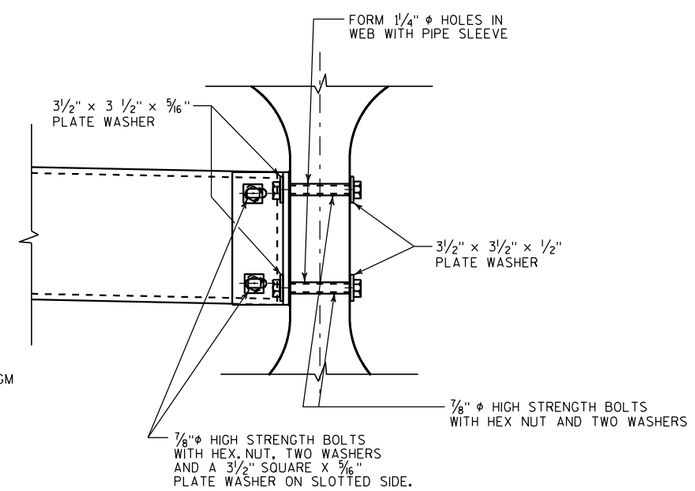
EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

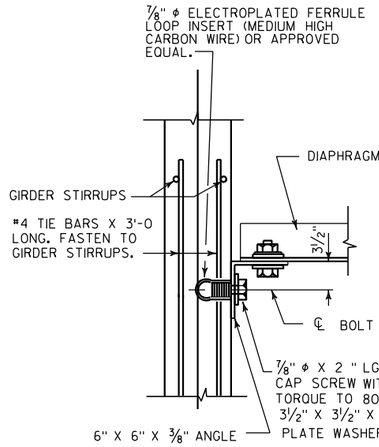


FOR CONTINUOUS LINE OF DIAPHRAGMS



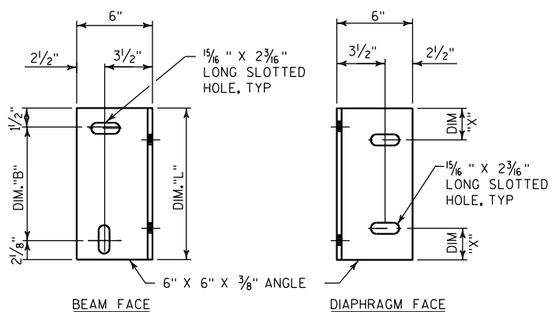
FOR STAGGERED DIAPHRAGM
(INTERIOR GIRDER ONLY)

DETAIL B



SECT. A-A

(FOR EXTERIOR ATTACHMENT)



DIAPHRAGM SUPPORT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY: GLM | PLANS CK'D.: KES

STEEL DIAPHRAGM

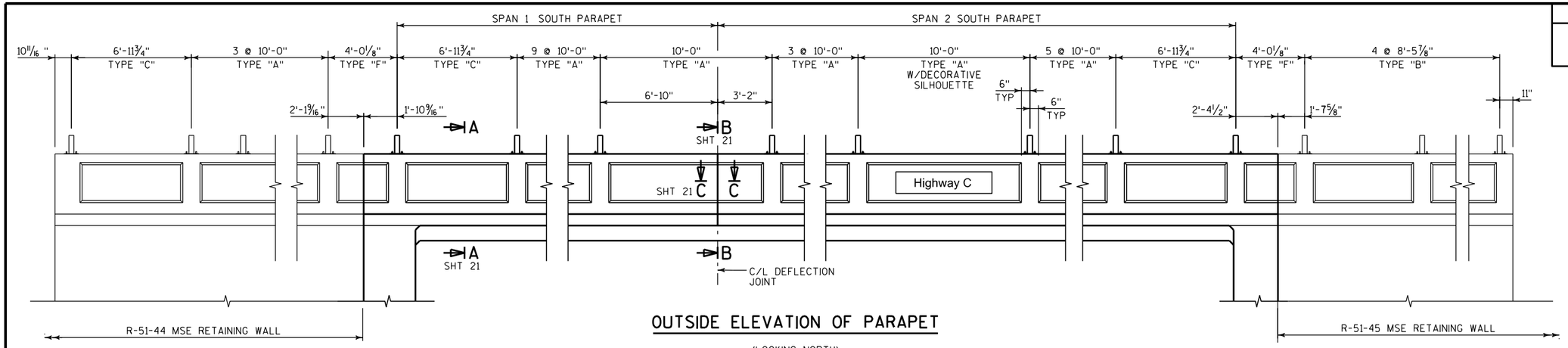
SHEET 18 OF 26

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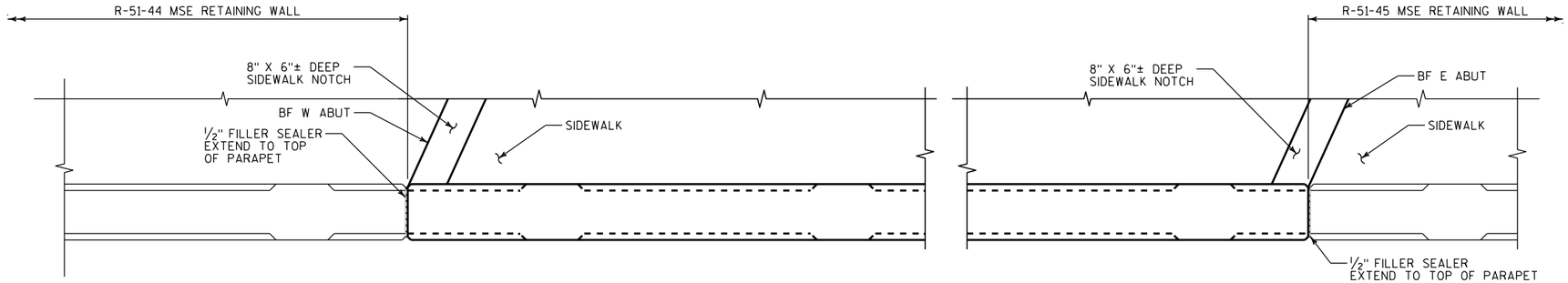
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1033-02-72

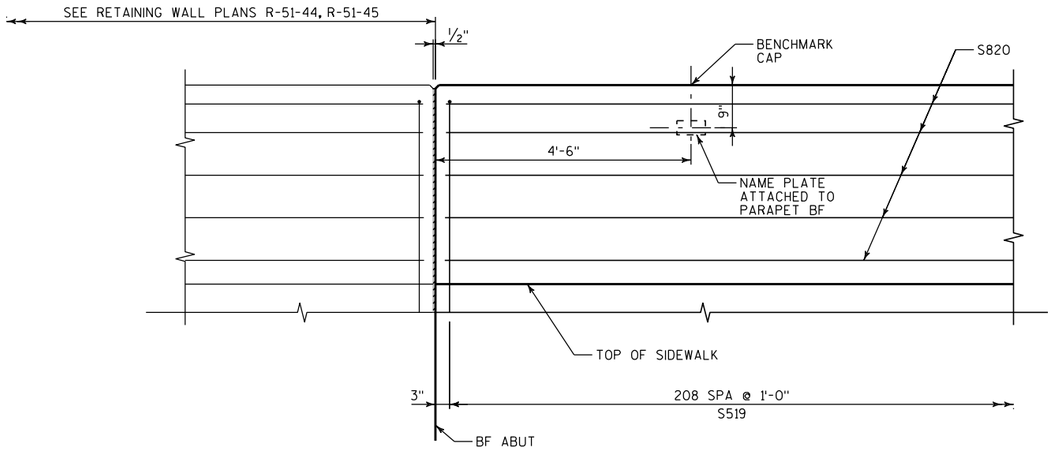


OUTSIDE ELEVATION OF PARAPET

(LOOKING NORTH)



PLAN



OUTSIDE ELEVATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY GLM | PLANS CK'D. KES

SOUTH VERTICAL FACE PARAPET

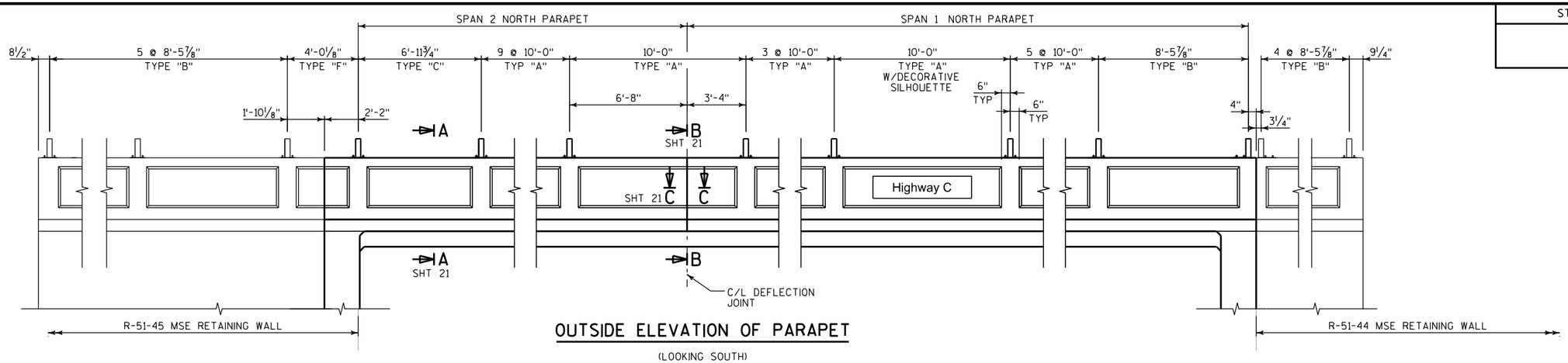
SHEET 19 OF 26

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8

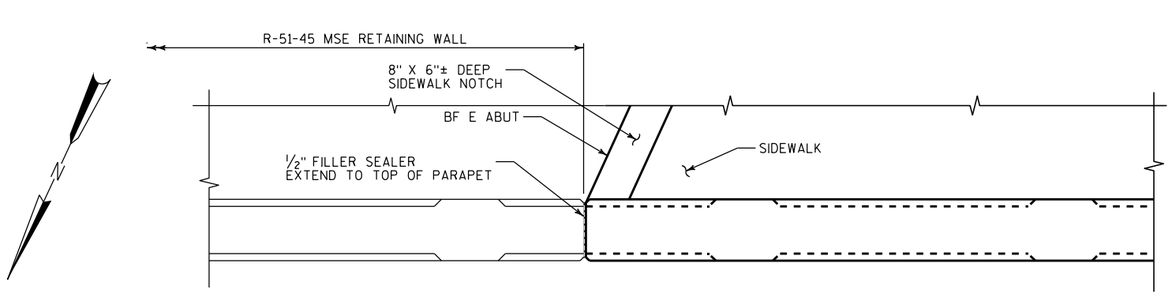
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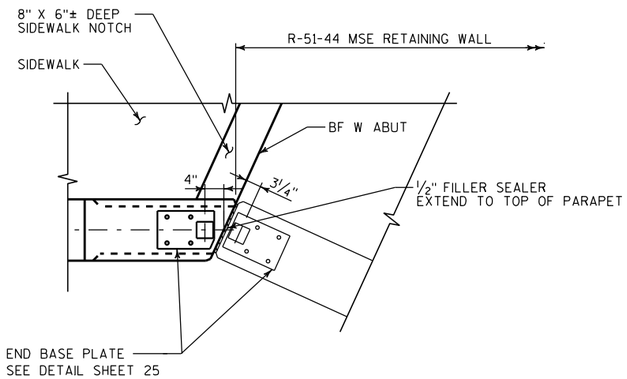
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1033-02-72



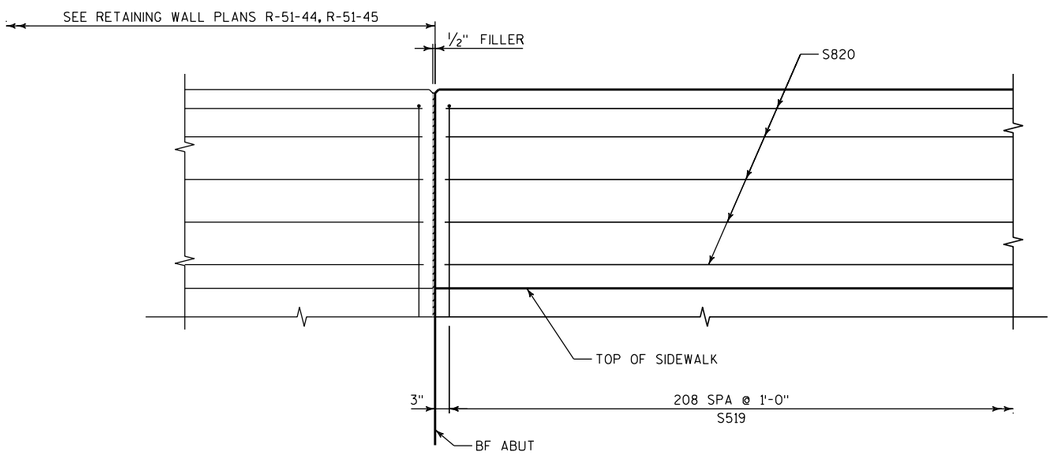
OUTSIDE ELEVATION OF PARAPET

(LOOKING SOUTH)





PLAN



OUTSIDE ELEVATION

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STRUCTURE B-51-131

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NORTH VERTICAL FACE PARAPET

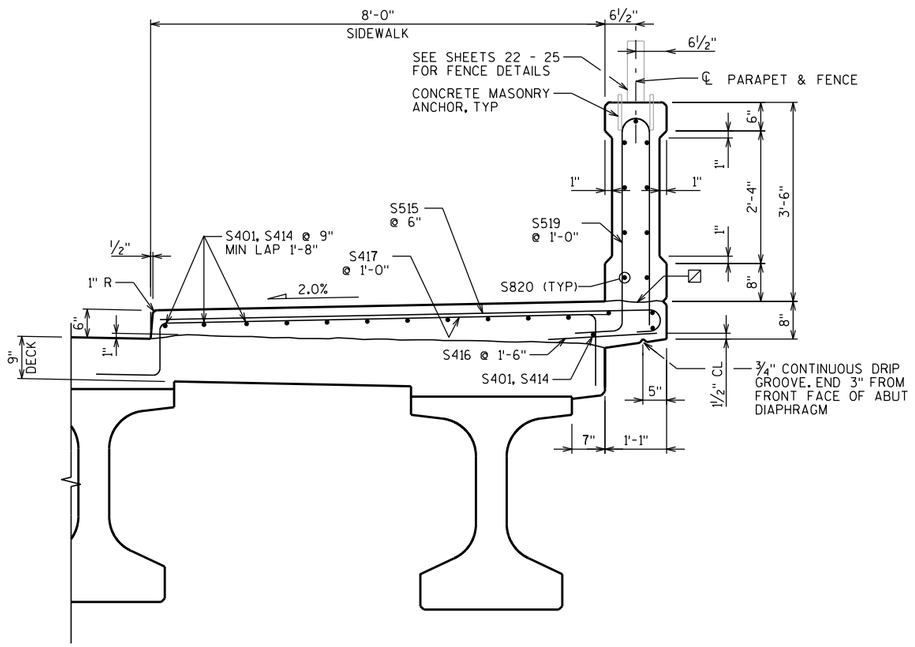
SHEET 20 OF 26

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8

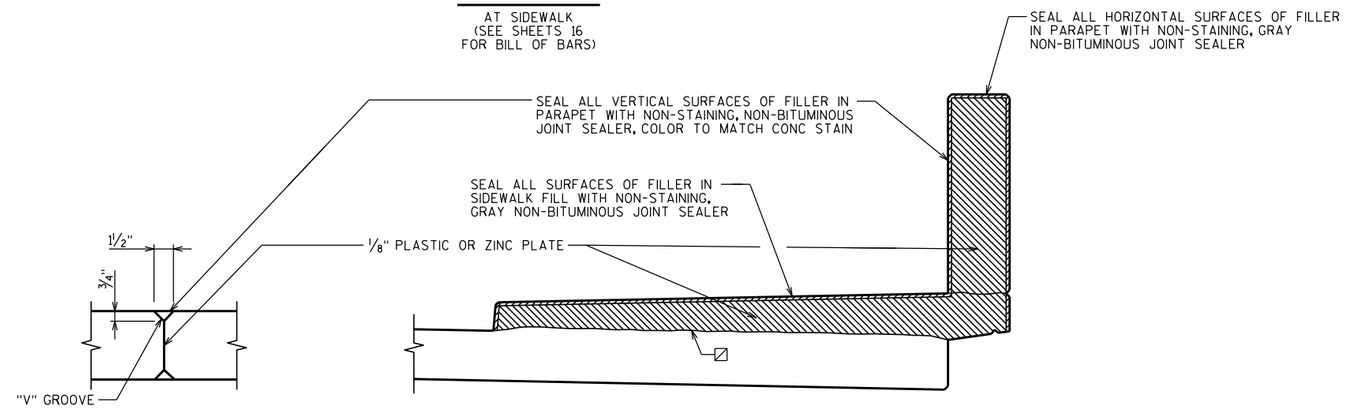
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SECTION A-A

AT SIDEWALK
(SEE SHEETS 16
FOR BILL OF BARS)



SECTION C-C

THRU DEFLECTION JOINT
(SEE SHEET 13, 14, 19 & 20 FOR LOCATION)

SECTION B-B

THRU DEFLECTION JOINT
(SEE SHEET 13, 14, 19 & 20 FOR LOCATION)

LEGEND

☑ HORIZ CONST JOINT - STRIKE OFF
AS SHOWN AND LEAVE ROUGH.
¾" V-GROOVE ON OUTSIDE FACE

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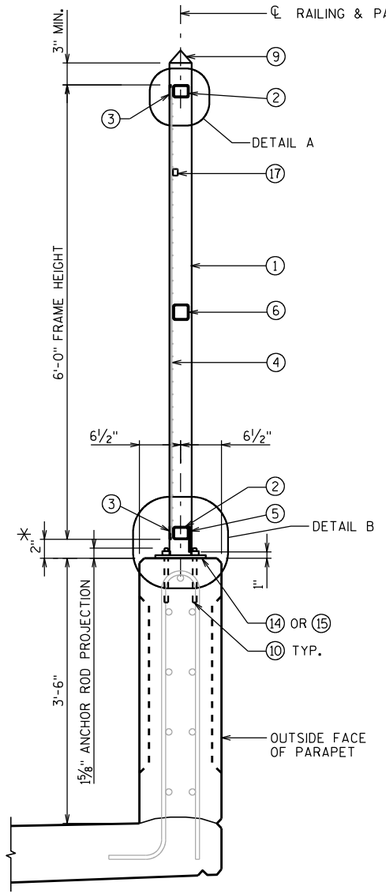
VERTICAL FACE
PARAPET SECTIONS

SHEET 21 OF 26

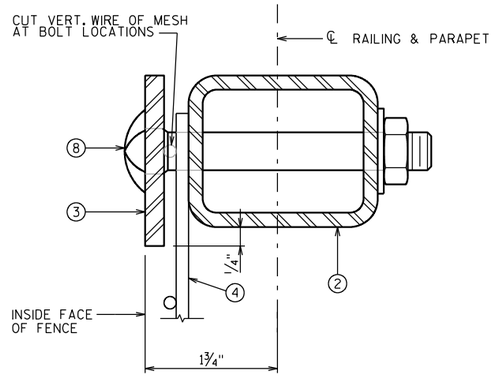
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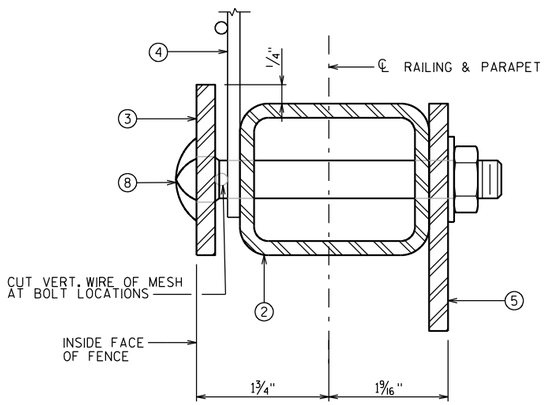
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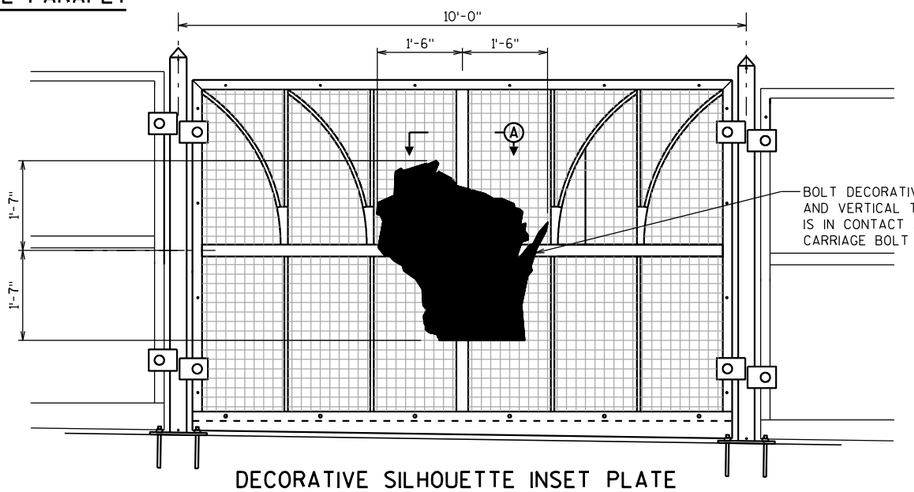
SECTION THRU VERTICAL FACE PARAPET



DETAIL A



DETAIL B



DECORATIVE SILHOUETTE INSET PLATE

OUTSIDE ELEVATION OF PANEL TYPE "A"

LEGEND

① HSS 3½ X 3½ X ⅜ POST WITH ¼" DIA. VENT HOLES TOP & BOTTOM ON OUTSIDE FACE. RESIZE AS NECESSARY FOR GALVANIZING PROCESS. WELD TO NO. 9 & BASE PLATE, TYP.

② HSS 2½ X 2 X ⅜. WELD TO NO. 6, 7 & 17.

③ PL 2¼" X ¼" WELDED FRAME. BOLT TO NO. 2 WITH NO. 8 AFTER PAINTING.

④ STEEL MESH 2" X 2" X 0.162 (8 GA.). PLACE VERTICAL WIRES ON INSIDE FACE OF PARAPET.

⑤ PL ¼" X WIDTH VARIES. PROVIDE SHORT SLOTTED VERT. HOLES FOR NO. 8.

⑥ HSS 2½" X 2½" X ⅜". WELD TO NO. 2, 6, 7, 18 & 19.

⑦ ¾" x ¾" BAR. WELD TO NO. 2, 6, 17, 18 & 19.

⑧ ½" DIA. CARRIAGE BOLT, WASHER AND NUT. PROVIDE ⅝" X ⅝" SQUARE HOLE IN NO. 3 & NO. 2 OF PANEL TYPE G ONLY FOR SQUARE PORTION OF THE BOLT HEAD.

⑨ 3½" X 3½" PYRAMIDAL CAP. WELD TO NO. 1.

⑩ ⅝" DIA. CONCRETE MASONRY ANCHOR TYPE S EPOXY, 7" MINIMUM EMBEDMENT WITH A MINIMUM PULLOUT OF 20 KIPS.

⑪ PL ⅝" X 4½" X 0'-6" CONNECTION WITH 2" DIA. HOLES FOR NO. 8. USE NO. 12 TO COVER 2" DIA. ADJUSTMENT HOLES. USE STANDARD HOLES ON CANTILEVERED FENCE PANEL AT ABUTMENTS.

⑫ PL ⅜" X 2" X 4½".

⑬ PL WASHER ¼" X 3½" X 3½".

⑭ PL ½" X 8" X 10" BASE PLATE. WELD TO NO. 1.

⑮ PL ½" X 8" X 1'-0" BASE PLATE. WELD TO NO. 1.

⑯ ½" DIA. BOLT, WASHER & NUT. TACK WELD NUT TO NO. 2.

⑰ ¾" X ¾" CURVED BAR. WELD TO NO. 2, 7, 18 & 19.

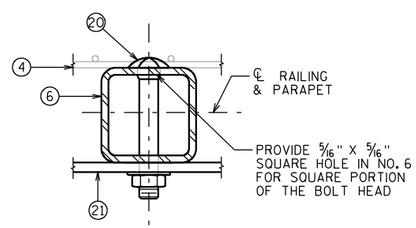
⑱ ¾" PLATE. WELD TO NO. 6, 7 & 17.

⑲ ¾" PLATE. WELD TO NO. 6 & 17.

⑳ ¼" DIA. CARRIAGE BOLT, WASHER AND NUT. PROVIDE ⅝" X ⅝" SQUARE HOLE IN NO. 6 FOR SQUARE PORTION OF THE BOLT HEAD.

㉑ ¼" DECORATIVE SILHOUETTE INSET PLATE AT SPECIAL 10'-0" PANEL. BOLT TO NO. 6 WITH NO. 20. ELECTRONIC COPIES OF THE CUTTING PATTERN ARE AVAILABLE BY CONTACTING: MR. JOSHUA LEVEQUE, WIS. D.O.T., 141 NW BARSTOW ST., WAUKESHA, WI 53187 PHONE: (414) 220-5444 EMAIL: JOSHUA.LEVEQUE@DOT.WI.GOV

✳ THE DIMENSION BETWEEN THE BOTTOM OF THE WELDED FRAME AND THE TOP OF THE PARAPET VARIES DUE TO THE VERTICAL PROFILE OF THE STRUCTURE. SET THIS DIMENSION TO 2" ADJACENT TO THE POST WHERE NO. 5 HAS THE SMALLEST VERTICAL DIMENSION.



SECTION A-A

NOTES

THE BID ITEM SHALL BE "FENCE DECORATIVE BRIDGE" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

FOR ELEVATIONS OF SPECIAL FENCE PANEL, SEE THIS SHEET.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

STRUCTURAL TUBING SHALL BE A.S.T.M. A500, GRADE B. ROLLED SHAPES, PLATES, BARS AND SHIMS SHALL BE A.S.T.M. A709, GRADE 36.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE POST VERTICAL.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE A.S.T.M. A307 AND SHALL BE GALVANIZED.

STANDARD WASHERS SHALL BE USED TO SHIM BASE PLATES IF REQUIRED. ALL WASHERS SHALL BE GALVANIZED.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

AFTER FABRICATION AND PRIOR TO BOLTING AND ASSEMBLING FENCE COMPONENTS, STEEL SHALL BE BLAST CLEANED PER SSPC-SP 6 AND GALVANIZED ACCORDING TO ASTM A 123. REPAIR ZINC COATING DAMAGED DURING FABRICATION AS SPECIFIED IN 635.3.4.

ALL WELDS SHALL BE PREQUALIFIED ACCORDING TO THE STRUCTURAL WELDING CODE STEEL (AWS D1.1). THE MINIMUM SIZE OF FILLET WELDS IS ⅜".

COVER THE 2" X 2" STEEL MESH WITH A COLORED POLYMER COATING. COAT ALL OTHER FENCING COMPONENTS WITH AN EPOXY PAINT SYSTEM. TOUCH UP DAMAGED PORTIONS OF PAINT AFTER PANEL ERECTION. SEE SPECIAL PROVISIONS FOR REQUIREMENTS.

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DECORATIVE FENCE BRIDGE (1 OF 4)

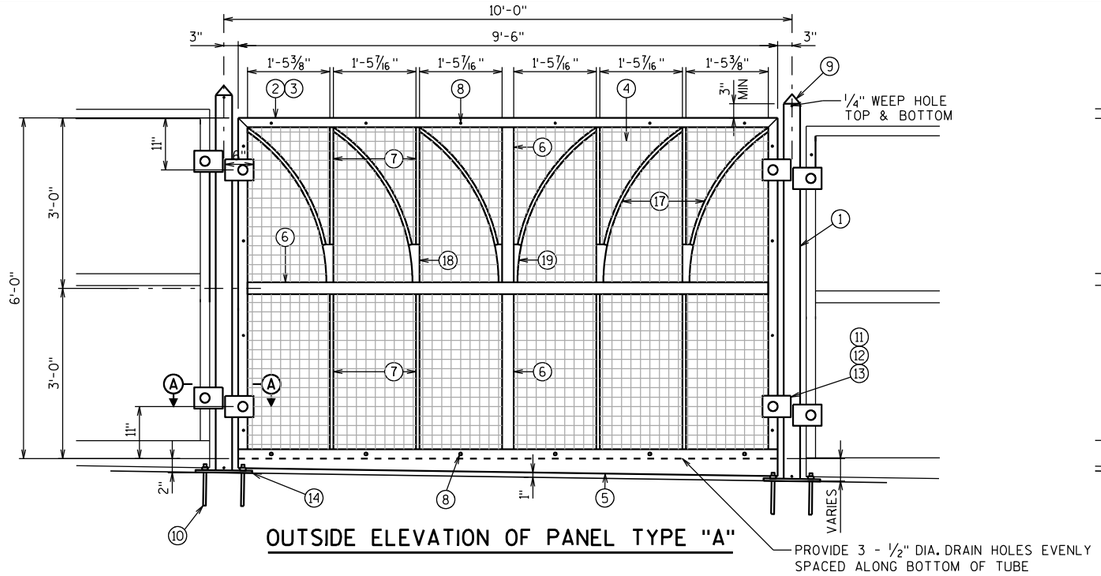
SHEET 22 OF 26

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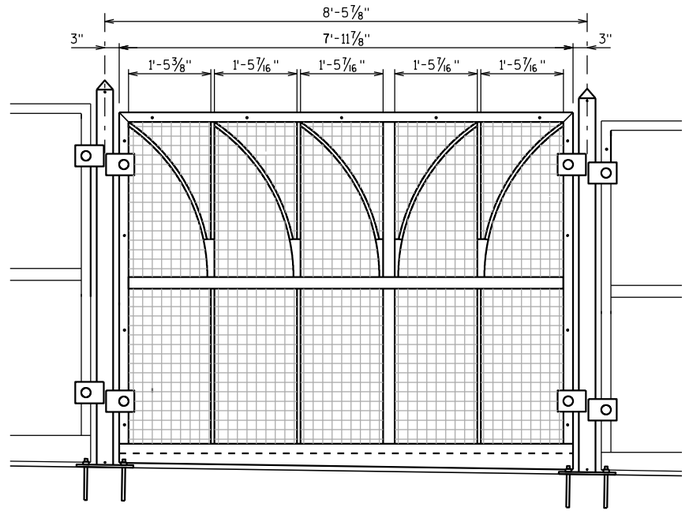
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8

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OUTSIDE ELEVATION OF PANEL TYPE "A"

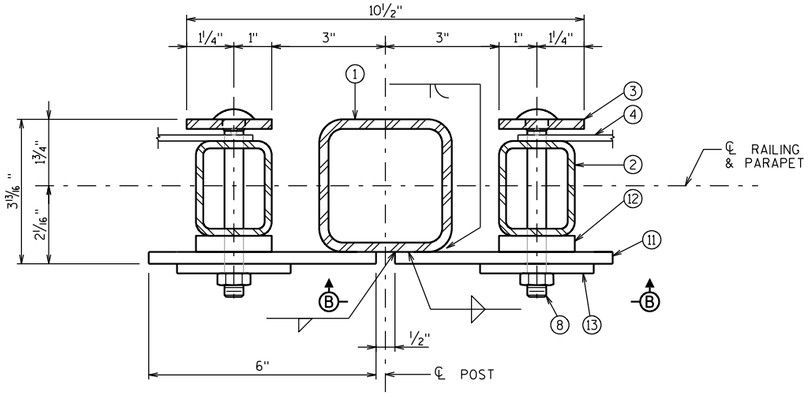


OUTSIDE ELEVATION OF PANEL TYPE "B"

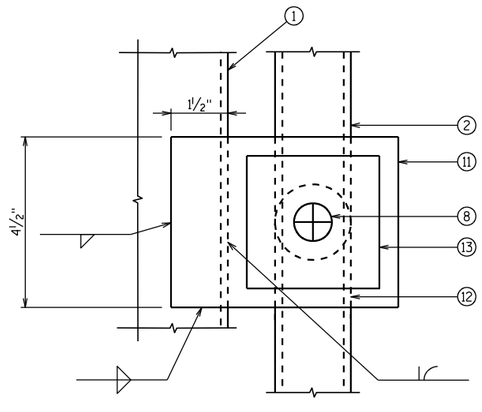
NOTES

FOR NOTES AND LEGEND, SEE SHEET 22.

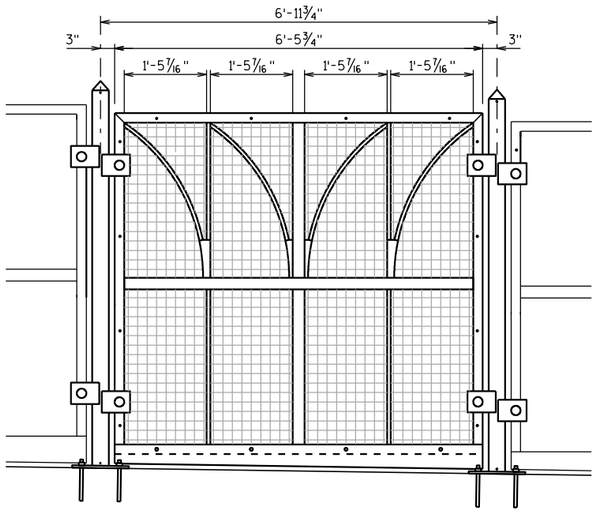
TYPICAL MEMBER SIZES, WELDING AND BOLTING DETAILS, AND MATERIALS ARE SHOWN IN 'OUTSIDE ELEVATION OF PANEL TYPE "A" ON THIS SHEET.



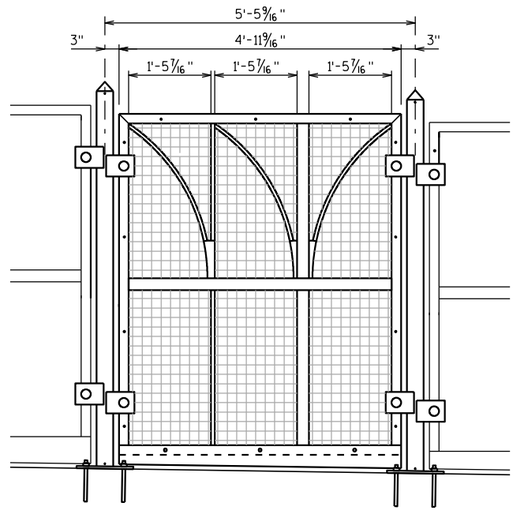
SECTION A-A



ELEVATION B-B



OUTSIDE ELEVATION OF PANEL TYPE "C"



OUTSIDE ELEVATION OF PANEL TYPE "D"

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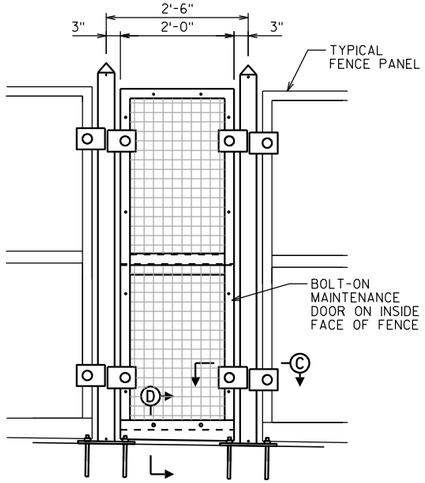
DECORATIVE FENCE BRIDGE (2 OF 4)

SHEET 23 OF 26

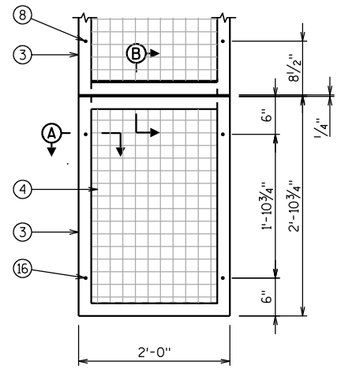
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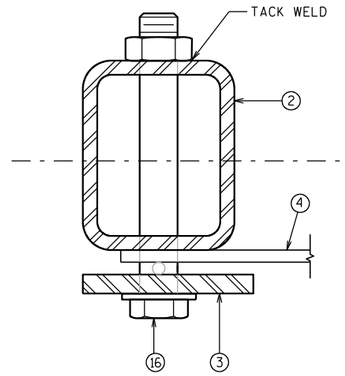


OUTSIDE ELEVATION OF PANEL TYPE "G"

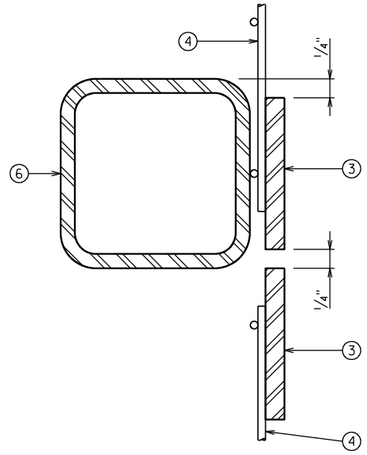


MAINTENANCE DOOR DETAIL

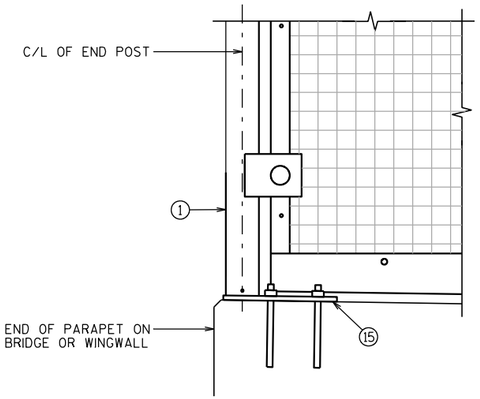
INSIDE ELEVATION



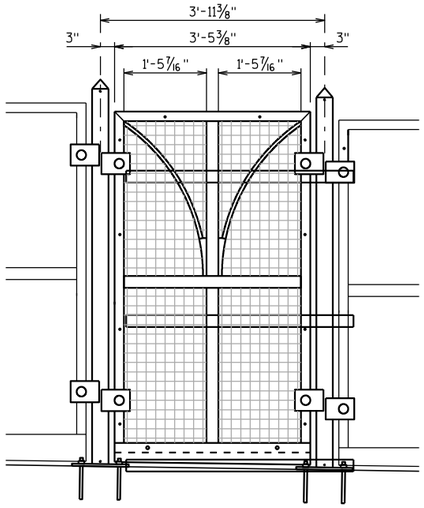
SECTION A-A



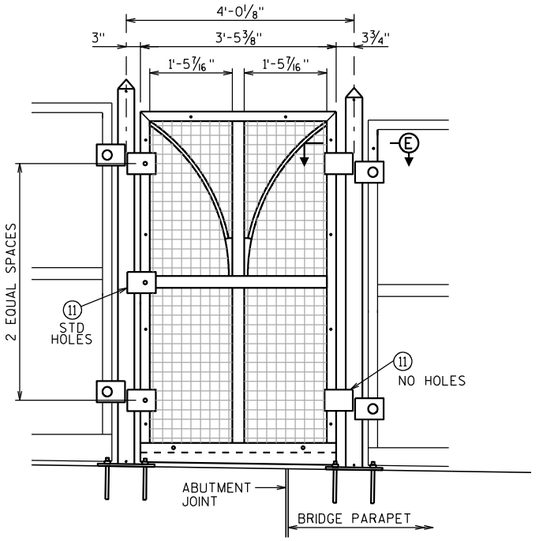
SECTION B-B



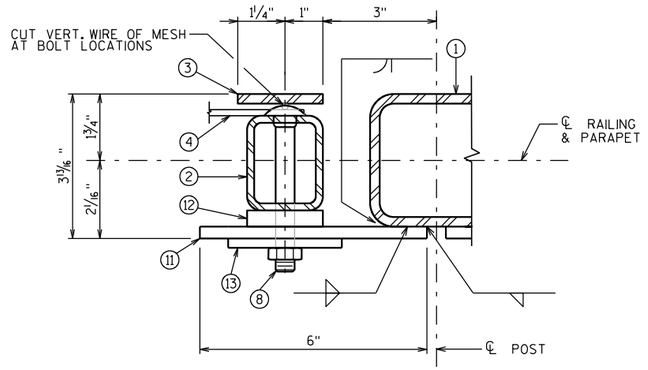
END POST DETAIL



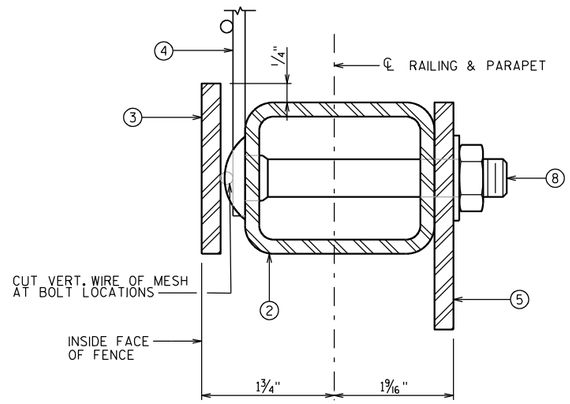
OUTSIDE ELEVATION OF PANEL TYPE "E"



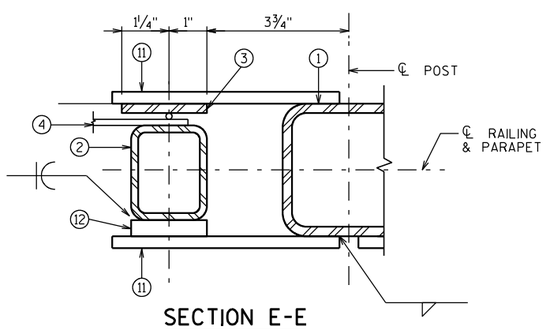
OUTSIDE ELEVATION OF PANEL TYPE "F"



SECTION C-C



SECTION D-D



SECTION E-E

NOTES

FOR NOTES AND LEGEND, SEE SHEET 22.

FOR TYPICAL MATERIALS, MEMBER SIZES, WELDING AND BOLTING DETAILS, SEE "OUTSIDE ELEVATION OF TYPICAL FENCE PANEL", TYPE "A" ON SHEET 23.

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DECORATIVE FENCE BRIDGE (3 OF 4)

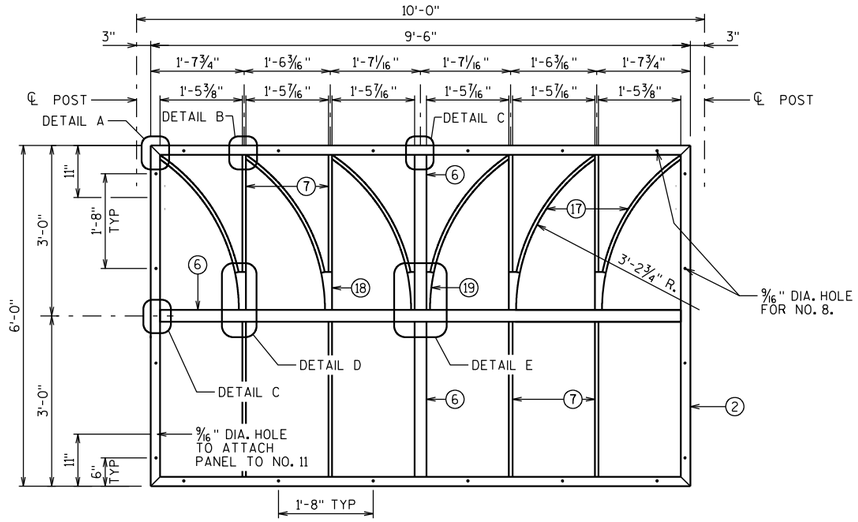
SHEET 24 OF 26

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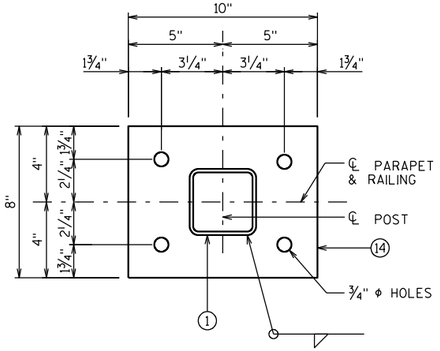
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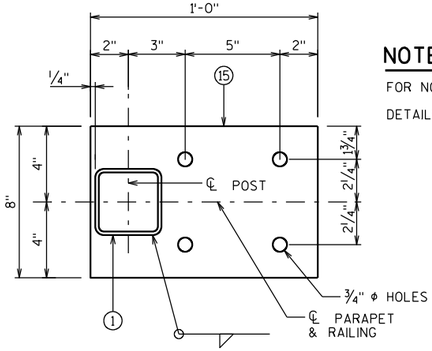


DECORATIVE FENCE BRIDGE PANEL

TYPICAL 10' PANEL SHOWN



BASE PLATE



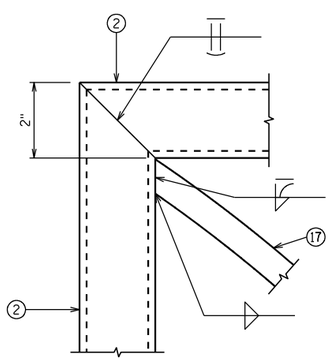
END BASE PLATE

NOTES

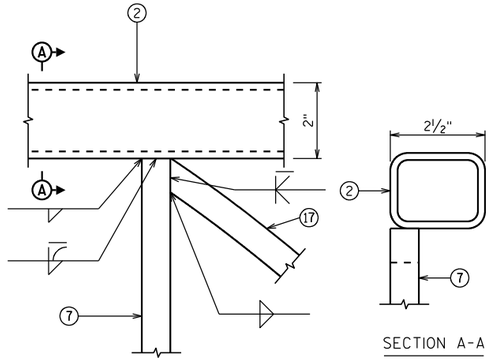
FOR NOTES AND LEGEND, SEE SHEET 22.

DETAILS SHOWN ARE TYPICAL FOR ALL WALL PANELS.

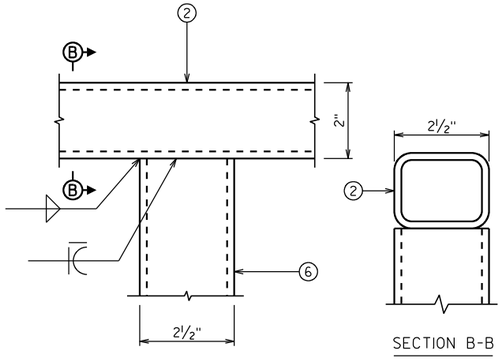
VERTICAL FACE PARAPET BASE PLATE DETAILS



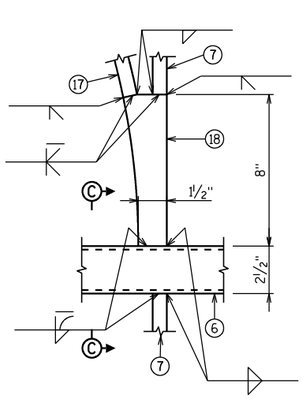
DETAIL A



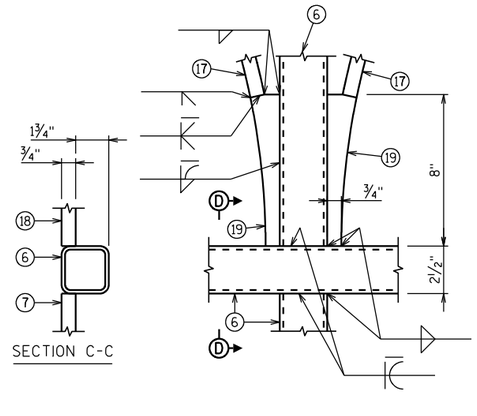
DETAIL B



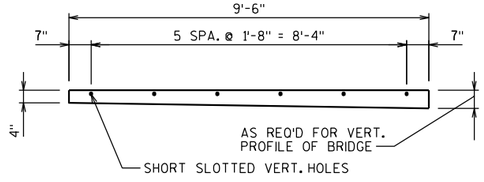
DETAIL C



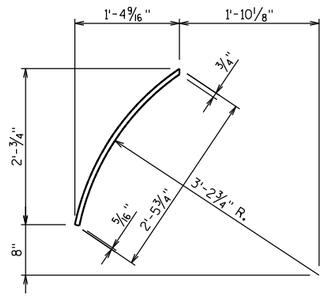
DETAIL D



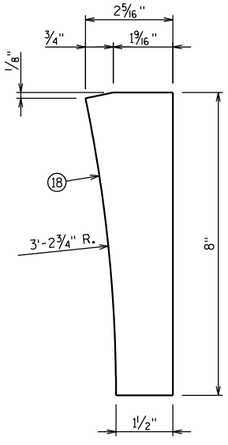
DETAIL E



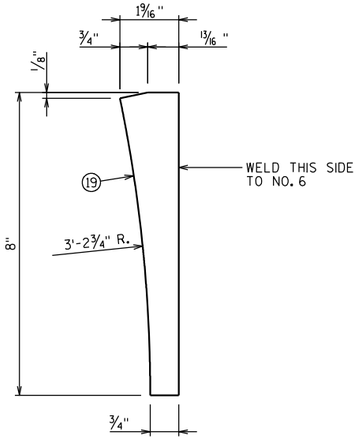
¼" PLATE (NO. 5)



¾" X ¾" CURVED BAR (NO. 17)



¾" PLATE (NO. 18)



¾" PLATE (NO. 19)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY GLM | PLANS CK'D. KES

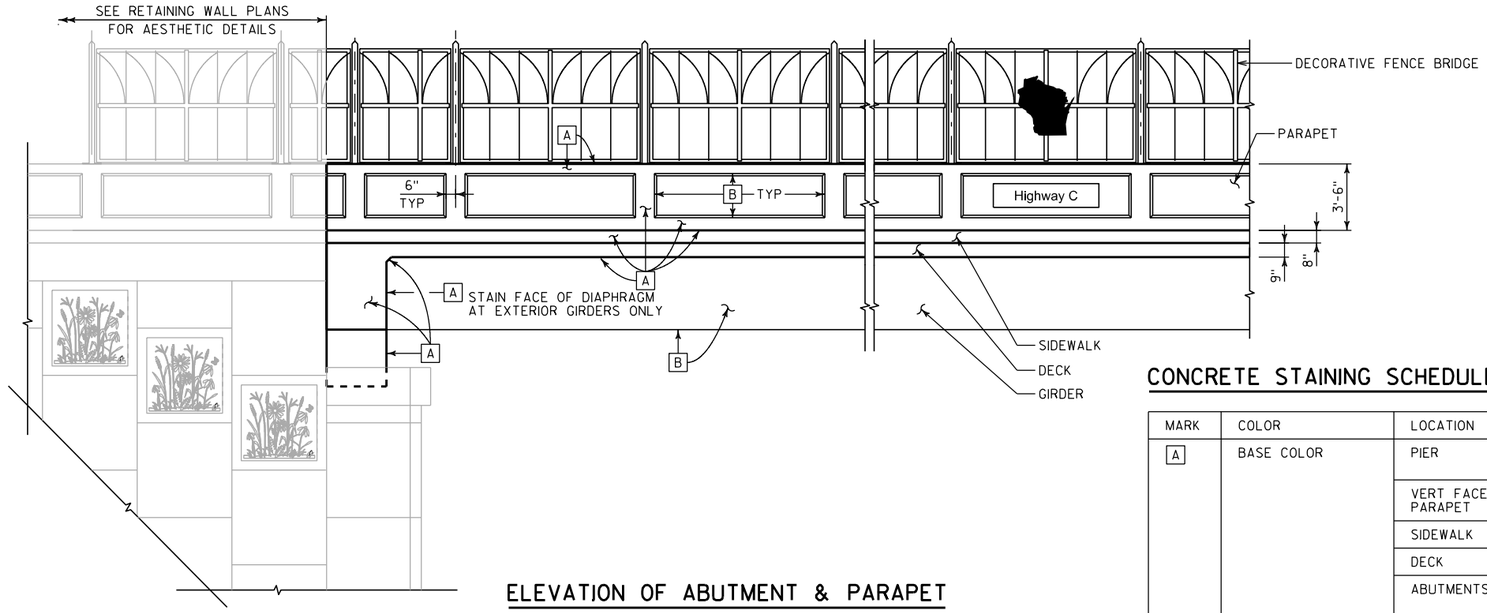
DECORATIVE FENCE BRIDGE (4 OF 4)

SHEET 25 OF 26

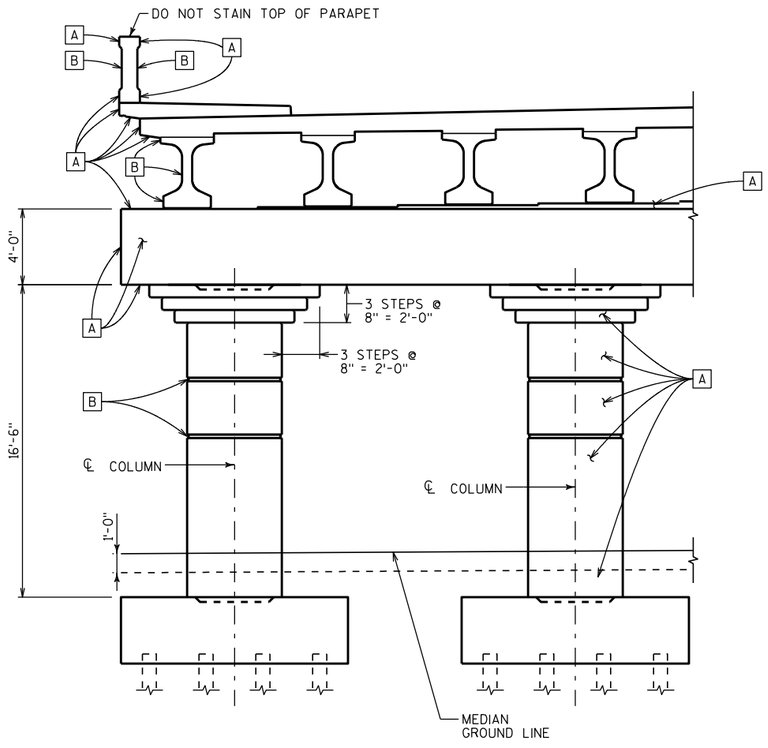
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STATE PROJECT NUMBER
1033-02-72



ELEVATION OF ABUTMENT & PARAPET



ELEVATION OF PIER

CONCRETE STAINING SCHEDULE

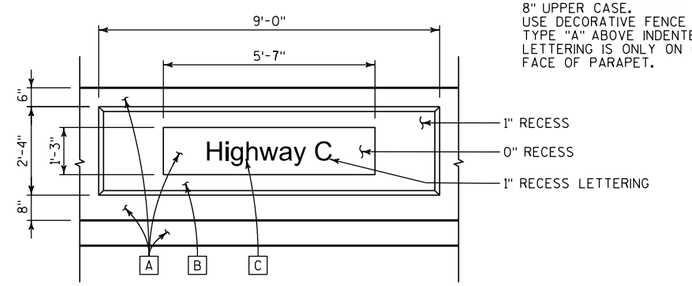
MARK	COLOR	LOCATION	NOTES
A	BASE COLOR	PIER	PIER CAP & COLUMNS, EXCEPT AS NOTED FOR ACCENT COLORS TO 1'-0" BELOW FINAL GRADE
		VERT FACE PARAPET	BOTH SIDES, EXCEPT AS NOTED FOR ACCENT COLORS
		SIDEWALK	FASCIA & EXPOSED UNDERSIDE
		DECK	FASCIA & EXPOSED UNDERSIDE TO EXTERIOR GIRDER FLANGE
		ABUTMENTS	EXTERIOR WING WALLS TO 1'-0" BELOW FINAL GRADE, FRONT FACE FROM BEAM SEAT TO 1'-0" BELOW FINAL GRADE
B	ACCENT COLOR #1	COLUMNS	HORIZONTAL RUSTICATIONS
		VERT FACE PARAPET	RECESSED PANELS ON BOTH SIDES & RECESSED PANELS AT ROADWAY NAME
		GIRDERS	EXTERIOR FACE AND UNDERSIDE OF EXTERIOR GIRDERS
C	ACCENT COLOR #2	PARAPETS	LETTERING AT ROADWAY NAME

STAIN COLORS

THE FINAL COLOR OF THE CONCRETE FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:

BASE COLOR : 33564
ACCENT COLOR #1: 33448
ACCENT COLOR #2: 20170

NOTES:
LETTERING SHALL BE 6" HELVETICA.
8" UPPER CASE.
USE DECORATIVE FENCE PANEL TYPE "A" ABOVE INDENTED TEXT.
LETTERING IS ONLY ON OUTSIDE FACE OF PARAPET.



INDENTED TEXT

EXTERIOR FACE OF PARAPET ONLY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-51-131

DRAWN BY GLM | PLANS CK'D. KES

AESTHETIC DETAILS

SHEET 26 OF 26

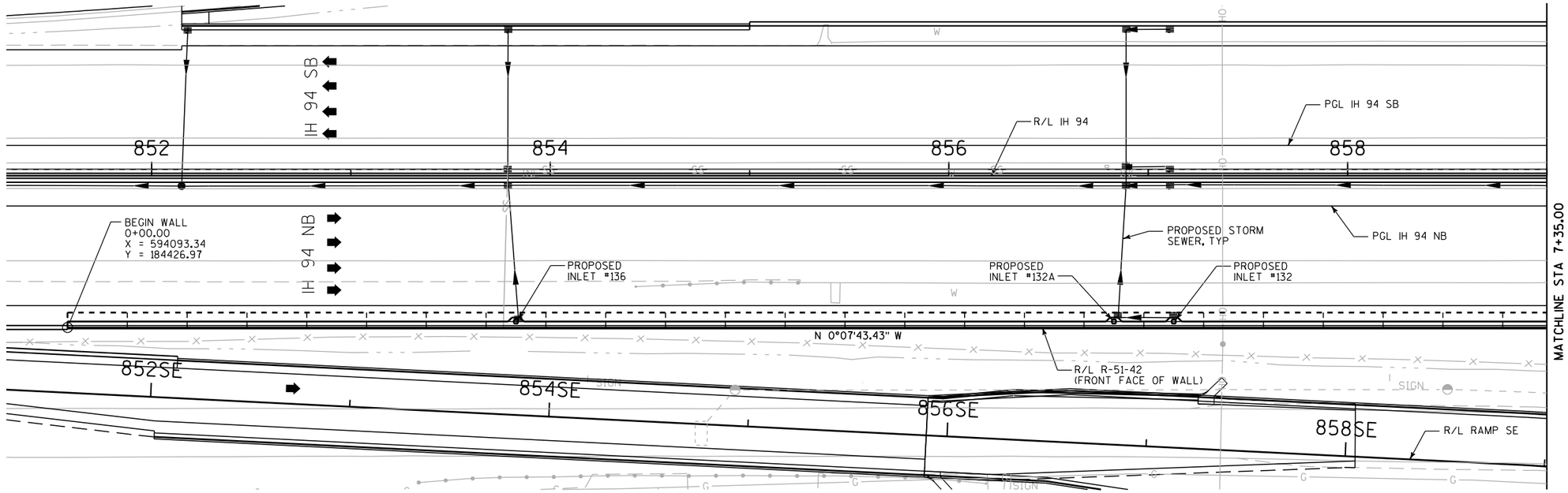
565

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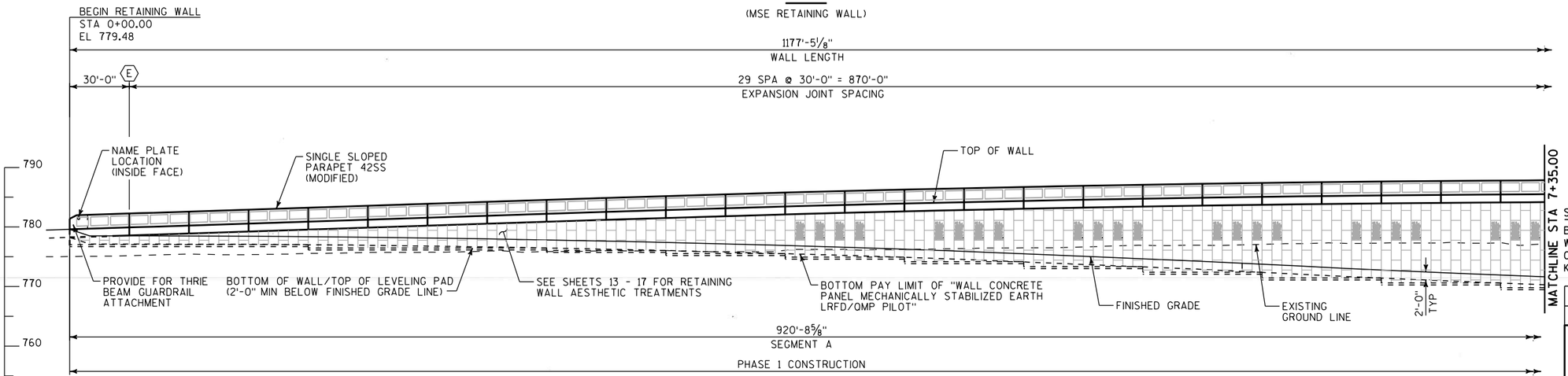
STATE PROJECT NUMBER

1033-02-72



PLAN

(MSE RETAINING WALL)



ELEVATION

(LOOKING WEST AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG THE FRONT FACE OF WALL)

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION (1 OF 2)
2. GENERAL PLAN & ELEVATION (2 OF 2)
3. TYPICAL WALL SECTIONS
4. QUANTITIES, NOTES & PROFILE GRADE LINES
5. WALL ELEVATION TABLES
6. SEGMENTS A & B PARAPET & COPING ELEVATION
7. SEGMENT C COPING ELEVATION & DETAILS
8. SEGMENTS D & E PARAPET & COPING ELEVATION
9. PARAPET, ANCHOR SLAB & COPING DETAILS
10. SINGLE SLOPED PARAPET 42SS (MODIFIED)
11. INLET DETAILS
12. ANCHOR SLAB INLET COVER SPECIAL
13. SEGMENT A AESTHETIC ELEVATION (1 OF 2)
14. SEGMENT A AESTHETIC ELEVATION (2 OF 2)
15. SEGMENTS B & C AESTHETIC ELEVATION
16. SEGMENTS C, D, & E AESTHETIC ELEVATION
17. AESTHETIC WALL TREATMENT DETAILS
18. SUBSURFACE EXPLORATION (1 OF 2)
19. SUBSURFACE EXPLORATION (2 OF 2)

DESIGN DATA

DESIGN SPECIFICATIONS:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION 2012

LIVE LOAD
LIVE LOAD SURCHARGE (ROADWAY) _____ 240 P.S.F.

MATERIAL PROPERTIES
CONCRETE MASONRY RETAINING WALL ____ f'c = 4,000 PSI
PRECAST CONCRETE WALL PANELS _____ f'c = 4,000 PSI
BAR STEEL REINFORCMENT _____ fy = 60,000 PSI
STRUCTURAL STEEL CARBON _____ fy = 36,000 PSI

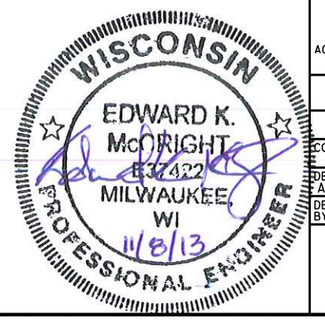
DESIGN THE MSE WALL IN FRONT OF THE ABUTMENT BODY TO RESIST THE FORCE FROM ALL HORIZONTAL EARTH PRESSURE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS AND A LIVE LOAD VERTICAL SURCHARGE LOAD OF 240 PSF.

DESIGN THE RETAINING WALL ADJACENT TO SOUTH ABUTMENT OF BRIDGES B-51-129 & B-51-130 FOR A HORIZONTAL BACKSLOPE BEHIND THE WALL AND A LIVE LOAD VERTICAL SURCHARGE LOAD OF 240 PSF.

LEGEND

(E) EXPANSION JOINT IN ANCHOR SLAB, COPING, AND PARAPET

TRAFFIC DIRECTION



STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

NO.	DATE	REVISION	BY

Milwaukee Transportation Partners LLC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 11/11/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-51-42

SOUTH RETAINING WALL AT STH 20/IH 94

COUNTY RACINE | TOWN/~~CITY/VILLAGE~~ YORKVILLE

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY EKM	DESIGN CK'D. MS	DRAWN BY TEK	PLANS CK'D. EKM

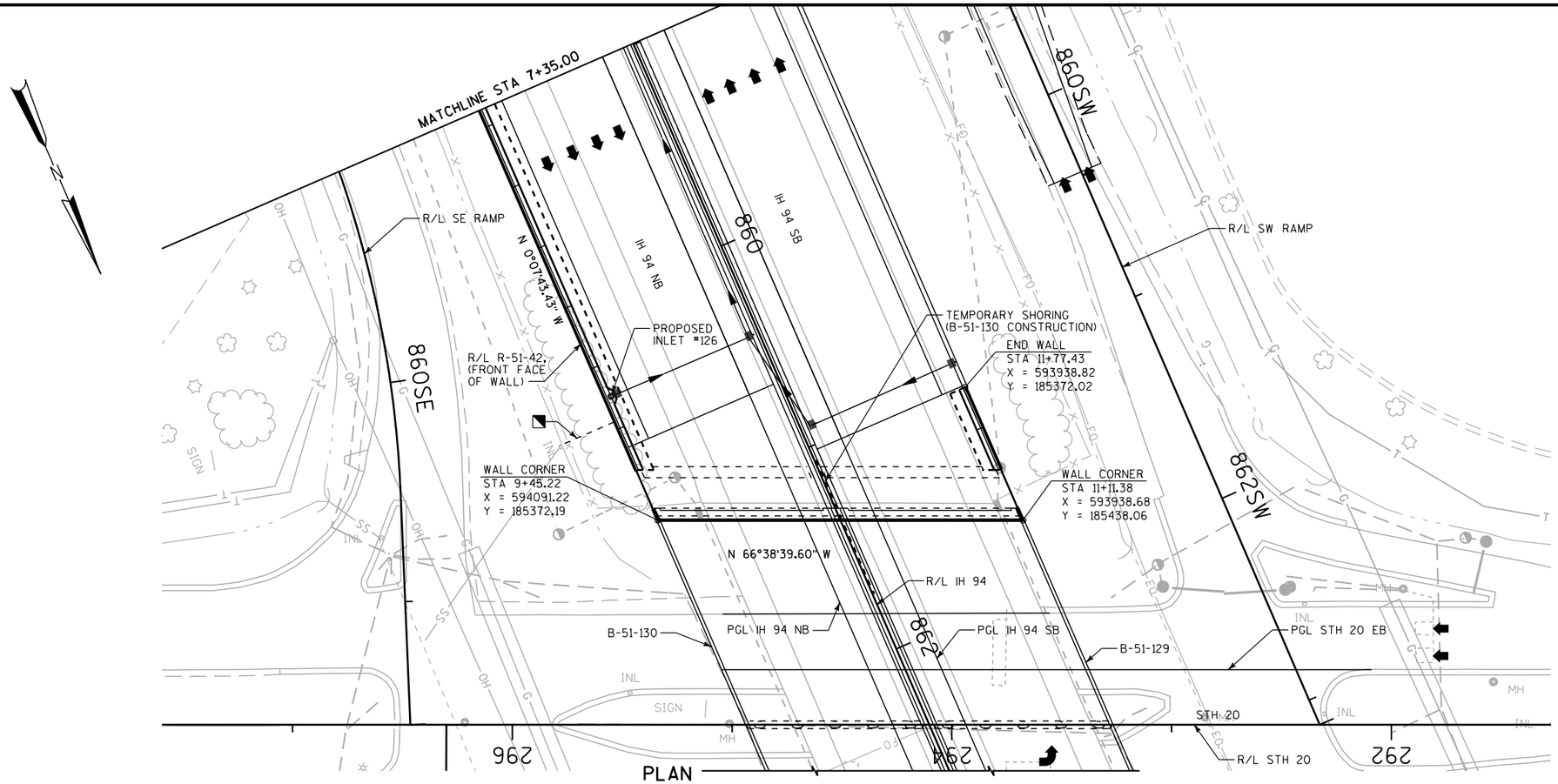
GENERAL PLAN & ELEVATION (1 OF 2)

SHEET 1 OF 19

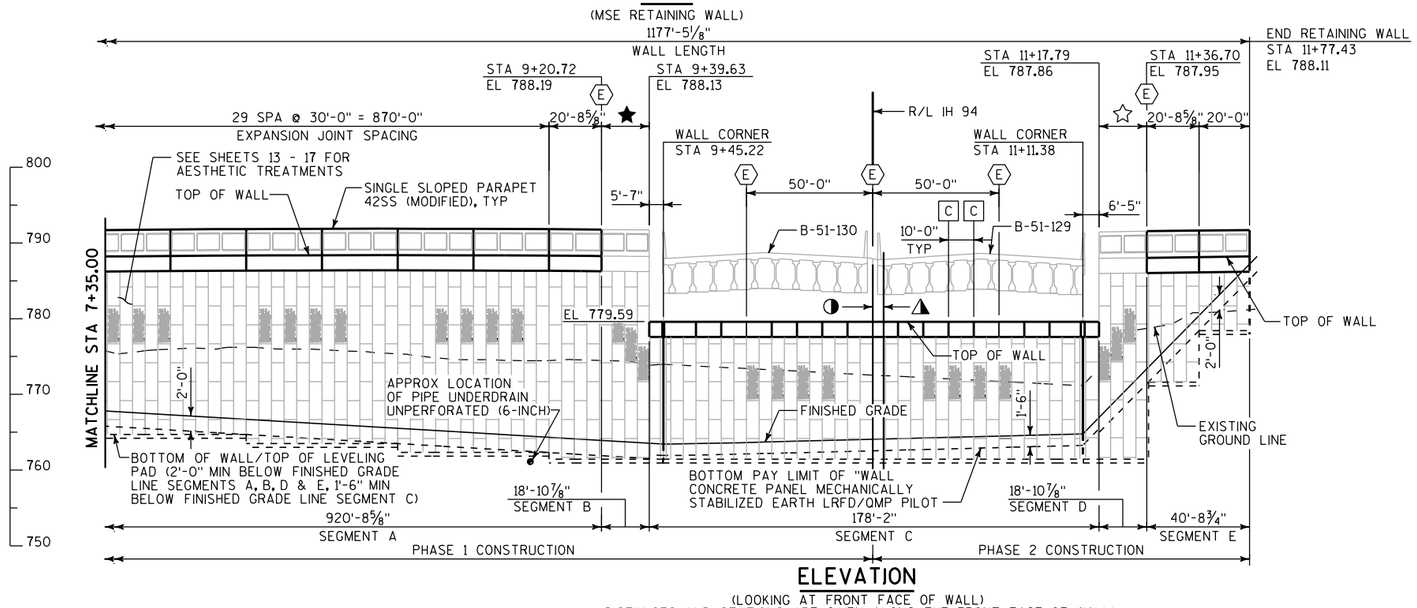
566

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STATE PROJECT NUMBER
1033-02-72



PLAN



ELEVATION

(LOOKING AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG THE FRONT FACE OF WALL)

LEGEND

- [C] CONTRACTION JOINT IN COPING AT ABUTMENT, SPACED AT 10'-0" BETWEEN EXPANSION JOINTS
- (E) EXPANSION JOINT IN ANCHOR SLAB, COPING, AND PARAPET
- TRAFFIC DIRECTION
- PIPE UNDERDRAIN UNPERFORATED (6-INCH) CONNECT TO EXISTING DRAINAGE STRUCTURE
- ★ STRUCTURAL APPROACH SLAB, SEE STRUCTURE B-51-130 PLANS FOR DETAILS
- ☆ STRUCTURAL APPROACH SLAB, SEE STRUCTURE B-51-129 PLANS FOR DETAILS
- ◭ TEMPORARY SHORING, NOT A RETAINING WALL ITEM
- ◑ TEMPORARY WALL WIRE FACED MECHANICALLY STABILIZED EARTH, SEE SHEET 4 FOR DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY TEK | PLANS CK'D. EKM

GENERAL PLAN & ELEVATION (2 OF 2)

SHEET 2 OF 19

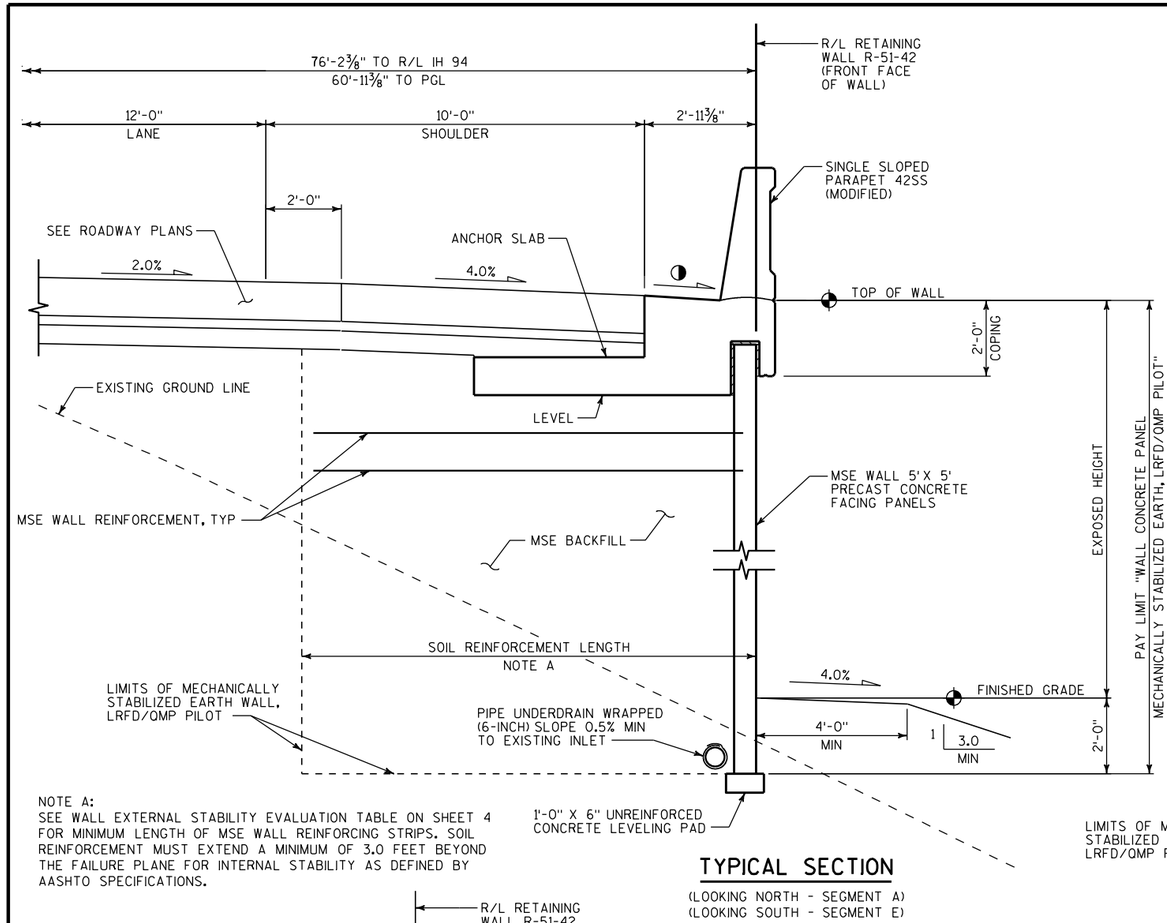
567

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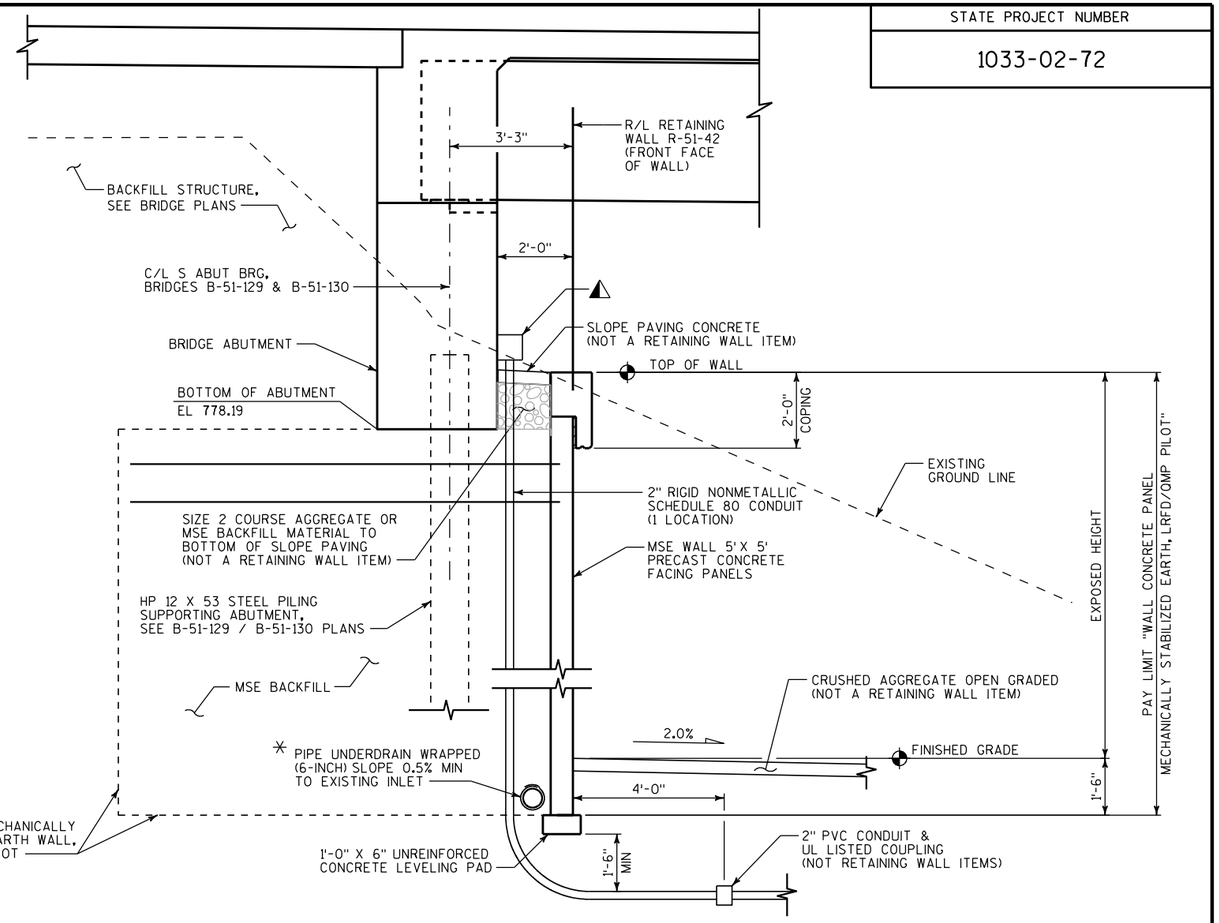
STATE PROJECT NUMBER
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NOTE A:
SEE WALL EXTERNAL STABILITY EVALUATION TABLE ON SHEET 4 FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

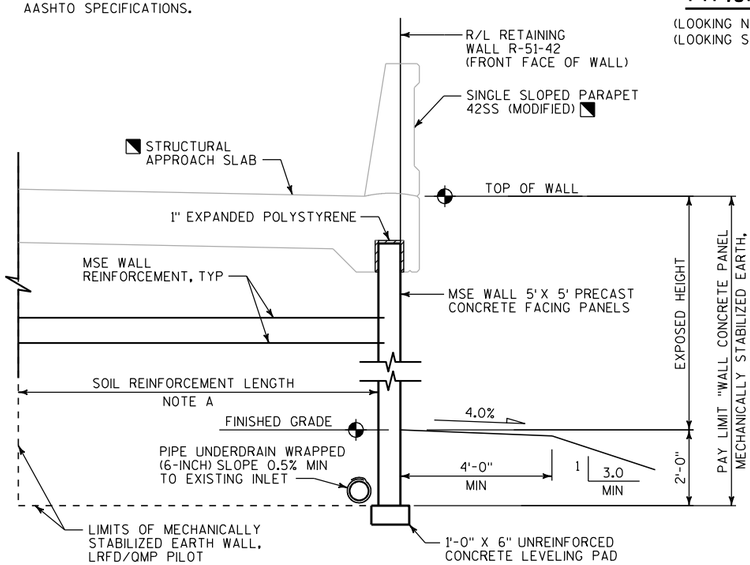
TYPICAL SECTION

(LOOKING NORTH - SEGMENT A)
(LOOKING SOUTH - SEGMENT E)



TYPICAL WALL SECTION AT ABUTMENT

(LOOKING WEST - SEGEMENT C)



TYPICAL WALL SECTION AT APPROACH SLAB

(LOOKING NORTH - SEGEMENT B)
(LOOKING SOUTH - SEGEMENT D)

LEGEND

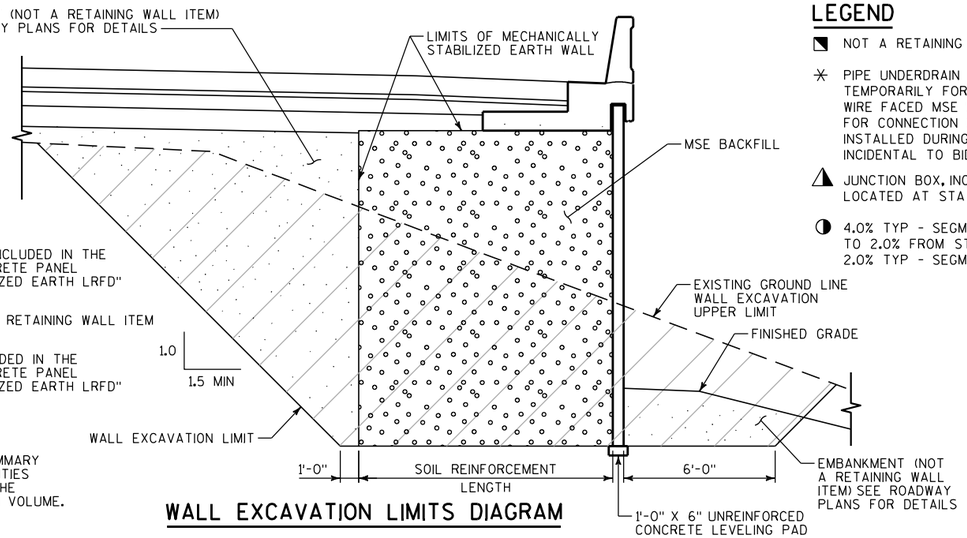
WALL EXCAVATION - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD"

EMBANKMENT - NOT A RETAINING WALL ITEM

MSE BACKFILL - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD"

NOTE:

REFER TO THE EARTHWORK SUMMARY OF THE MISCELLANEOUS QUANTITIES IN THE ROADWAY PLANS FOR THE CALCULATED WALL EXCAVATION VOLUME.



WALL EXCAVATION LIMITS DIAGRAM

LEGEND

NOT A RETAINING WALL ITEM.

PIPE UNDERDRAIN WRAPPED (6-INCH) TO BE CAPPED TEMPORARILY FOR PHASE 1 CONSTRUCTION AT TEMPORARY WIRE FACED MSE WALL. CAP TO BE REMOVED ALLOWING FOR CONNECTION OF PIPE UNDERDRAIN WRAPPED (6-INCH) INSTALLED DURING PHASE 2 CONSTRUCTION. TEMPORARY CAP INCIDENTAL TO BID ITEM PIPE UNDERDRAIN WRAPPED (6-INCH).

JUNCTION BOX, INCLUDED IN BID ITEMS FOR B-51-130. LOCATED AT STA 9+68.28, 2.00' LT.

4.0% TYP - SEGMENT A. TRANSITION PAN SLOPE LINEARLY 4.0% TO 2.0% FROM STA 8+95.72 TO STA 9+20.72 (SEGMENT A). 2.0% TYP - SEGMENT E

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY	TEK	PLANS CK'D.	EKM

TYPICAL WALL SECTIONS

SHEET 3 OF 19

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STATE PROJECT NUMBER
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TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	SEGMENT A	SEGMENT B	SEGMENT C	SEGMENT D	SEGMENT E	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	655	---	---	---	30	685
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	545	---	---	---	25	570
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	83,725	---	---	---	3,680	87,405
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	190	---	1	---	43	234
517.1010.S.0004	CONCRETE STAINING R-51-42	SF	17,285	445	3,025	320	525	21,600
517.1050.S.0001	ARCHITECTURAL SURFACE TREATMENT R-51-42	SF	800	75	200	75	---	1,150
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	27	---	---	---	---	27
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	921	19	179	19	41	1,179
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1	---	---	---	---	1
652.0325	CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH	LF	---	---	25	---	---	25
SPV.0060.4120	ANCHOR SLAB INLET COVER SPECIAL	EACH	4	---	---	---	---	4
SPV.0165.4710	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD / QMP PILOT	SF	13,695	500	3,030	375	400	18,000
SPV.0165.4720	TEMPORARY WALL WIRE FACE MECHANICALLY STABILIZED EARTH LRFD / QMP PILOT	SF	---	---	710	---	---	710
	NON BID ITEMS							
	PREFORMED JOINT FILLER	SIZE						¾",2"
	NON-BITUMINOUS JOINT SEALER	SIZE						¾",1",2"
	CORK FILLER	SIZE						1"
	NAME PLATE	EACH						1
	EXPANDED POLYSTYRENE	SIZE						1"

NOTE: ALL ITEMS ARE CATEGORY 3050

WALL EXTERNAL STABILITY EVALUATION

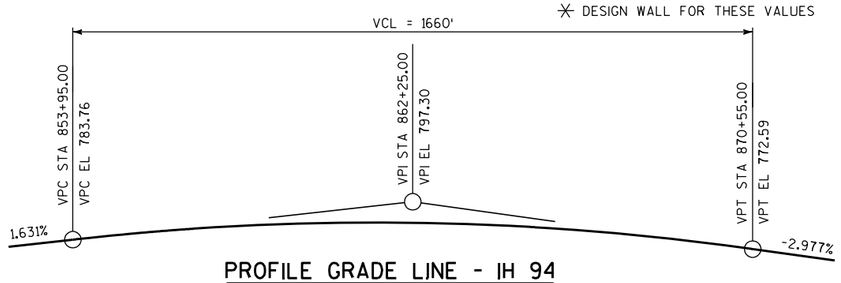
	DIMENSIONS			
WALL HEIGHT (FEET)	18.5	14.0	21.0	26.0
EXPOSED WALL HEIGHT (FEET)	17.0	12.0	19.0	24.0
MINIMUM LENGTH OF REINFORCEMENT (FEET) ⚹	13.0	10.2	14.7	18.2
WALL STATION (R/L R-51-42)	10+20	4+40	6+40	9+00
BORING USED	05-BR, 06-BR	08-RW	07-RW, 08-RW	06-BR, 07-RW
CAPACITY TO DEMAND RATIO (CDR)				
SLIDING	1.05	1.37	1.39	1.44
ECCENTRICITY	1.83	1.01	1.06	1.13
BEARING	1.52	3.41	2.00	1.30
GLOBAL STABILITY	1.12	2.02	1.69	1.28

⚹ FINAL DESIGN FOR INTERNAL STABILITY, EXTERNAL SLIDING AND ECCENTRICITY AT OTHER WALL STATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR'S WALL DESIGNER.

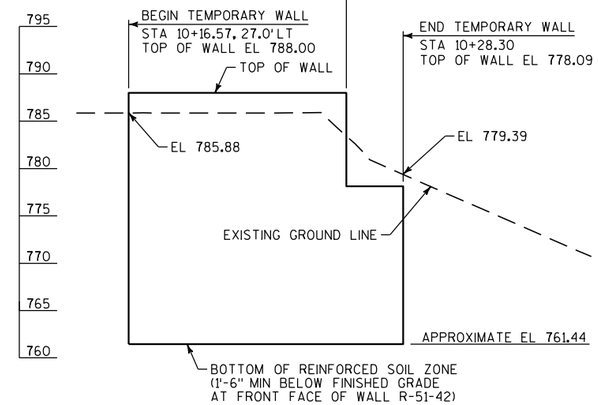
SOIL PARAMETERS

SOIL DESCRIPTION	UNIT WEIGHT (PCF)	UNDRAINED		DRAINED	
		FRICTION ANGLE (DEGREES)	COHESION (PSF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
RETAINED MSE WALL FILL ⚹	130-135	0	2,000-4,000	33	50-150
LEAN CLAY FILL	130	0	2,000	30	50
NATIVE LEAN CLAY (HARD)	135	0	4,000	33	150
NATIVE LEAN CLAY (VERY STIFF)	130-135	0	2,000-2,500	31-32	75-100

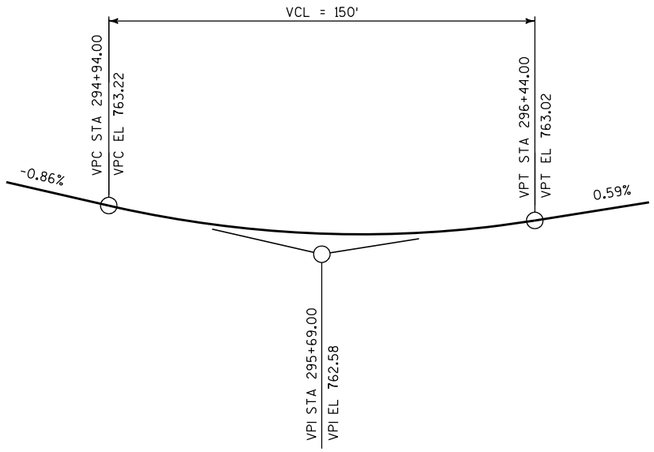
⚹ DESIGN WALL FOR THESE VALUES



PROFILE GRADE LINE - IH 94



ELEVATION AT TEMPORARY WALL



PROFILE GRADE LINE - STH 20

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

ALL DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS NOTED OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS NOTED OTHERWISE.

EXISTING STRUCTURES ARE NOT SHOWN IN THESE PLANS. THE REMOVAL OF THESE STRUCTURES IS INCLUDED IN A LUMP SUM PAY ITEM AS PART OF THE B-51-129 AND B-51-130 BRIDGE QUANTITIES.

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF WALL R-51-42 WITH ABUTMENTS OF BRIDGES B-51-129 AND B-51-130. R-51-42 IS TO BE CONSTRUCTED IN PHASES CONCURRENT WITH THE ROADWAY PLANS.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH, LRFD/QMP PILOT".

THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH, LRFD/QMP PILOT".

ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE TO BE EPOXY COATED.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR THE SEGMENT A & E CAST-IN-PLACE ANCHOR SLAB/COPING AND THE PARAPETS ARE PAID FOR UNDER THE ITEMS "CONCRETE MASONRY RETAINING WALLS" AND "BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS" RESPECTIVELY.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH, LRFD/QMP PILOT" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF THE WALL AS SHOWN IN THE PLANS. THE TOP OF THE LEVELING PAD IS ASSUMED TO BE AT LEAST 2'-0" BELOW FINISHED GRADE FOR SEGMENTS A, B, D & E AND 1'-6" BELOW FINISHED GRADE FOR SEGMENT C.

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

THE QUANTITIES OF CONCRETE AND BAR STEEL REINFORCEMENT FOR THE SEGMENT C CAST-IN-PLACE COPING ARE INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH, LRFD/QMP PILOT."

THE STANDARD PANEL SIZE SHALL BE 5'HIGH X 5'WIDE. 5'HIGH X 10'WIDE STANDARD PANELS WILL NOT BE ALLOWED.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY	TEK	PLANS CK'D.	EKM

QUANTITIES, NOTES & PROFILE GRADE LINES

SHEET 4 OF 19

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8

8

STATE PROJECT NUMBER

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SEGMENT A WALL ELEV. ◪

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
0+00.00	779.48	779.44	772.61
0+10.00	779.63	777.78	772.66
0+20.00	779.79	777.78	772.70
0+30.00	779.94	777.78	772.79
0+40.00	780.10	777.77	772.93
0+50.00	780.27	777.76	773.09
0+60.00	780.44	777.74	773.21
0+70.00	780.59	777.72	773.13
0+80.00	780.76	777.69	773.06
0+90.00	780.92	777.67	773.07
1+00.00	781.08	777.63	773.13
1+10.00	781.25	777.60	773.20
1+20.00	781.41	777.55	773.36
1+30.00	781.57	777.51	773.43
1+40.00	781.74	777.46	773.51
1+50.00	781.90	777.41	773.62
1+60.00	782.06	777.35	773.62
1+70.00	782.22	777.29	773.64
1+80.00	782.39	777.22	773.69
1+90.00	782.55	777.15	773.74
2+00.00	782.71	777.08	773.81
2+10.00	782.88	777.00	773.94
2+20.00	783.04	776.92	773.97
2+30.00	783.20	776.83	773.70
2+40.00	783.37	776.74	773.81
2+50.00	783.53	776.65	773.85
2+60.00	783.69	776.55	773.90
2+70.00	783.84	776.45	774.03
2+80.00	783.99	776.34	774.03
2+90.00	784.14	776.23	774.00
3+00.00	784.29	776.12	774.10
3+10.00	784.43	776.00	773.93
3+20.00	784.58	775.87	773.83
3+30.00	784.71	775.75	773.76
3+40.00	784.85	775.62	773.76
3+50.00	784.98	775.48	773.82
3+60.00	785.11	775.34	774.14
3+70.00	785.24	775.20	774.38
3+80.00	785.37	775.05	774.40
3+90.00	785.49	774.90	774.39
4+00.00	785.61	774.74	774.21
4+10.00	785.72	774.58	774.41
4+20.00	785.84	774.42	774.37
4+30.00	785.95	774.24	774.45
4+40.00	786.06	774.07	774.55
4+50.00	786.16	773.87	774.59
4+60.00	786.27	773.67	774.72
4+70.00	786.37	773.47	774.73
4+80.00	786.46	773.26	774.77

◪ = LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

SEGMENT A WALL ELEV. ◪

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
4+90.00	786.56	773.05	774.82
5+00.00	786.65	772.84	774.90
5+10.00	786.74	772.63	775.05
5+20.00	786.82	772.42	775.19
5+30.00	786.91	772.21	775.33
5+40.00	786.99	772.00	775.42
5+50.00	787.06	771.78	775.33
5+60.00	787.14	771.56	775.43
5+70.00	787.21	771.33	775.42
5+80.00	787.28	771.10	775.39
5+90.00	787.35	770.87	775.50
6+00.00	787.41	770.63	775.67
6+10.00	787.47	770.39	775.79
6+20.00	787.53	770.14	775.83
6+30.00	787.59	769.89	775.94
6+40.00	787.64	769.64	775.93
6+50.00	787.69	769.41	775.93
6+60.00	787.74	769.19	776.00
6+70.00	787.78	768.96	776.03
6+80.00	787.82	768.74	776.01
6+90.00	787.86	768.52	776.05
7+00.00	787.90	768.31	776.03
7+10.00	787.93	768.11	775.93
7+20.00	787.96	767.91	775.99
7+30.00	787.99	767.71	775.37
7+40.00	788.01	767.51	775.75
7+50.00	788.04	767.31	776.00
7+60.00	788.05	767.11	776.14
7+70.00	788.07	766.91	776.07
7+80.00	788.09	766.71	776.21
7+90.00	788.10	766.52	776.06
8+00.00	788.10	766.32	776.00
8+10.00	788.11	766.12	775.91
8+20.00	788.11	765.92	775.76
8+30.00	788.11	765.72	775.57
8+40.00	788.11	765.52	775.37
8+50.00	788.10	765.32	775.03
8+60.00	788.10	765.12	774.71
8+70.00	788.08	764.93	774.60
8+80.00	788.07	764.73	774.53
8+90.00	788.05	764.53	774.46
9+00.00	788.07	764.33	774.45
9+10.00	788.13	764.13	774.58
9+20.00	788.18	763.93	774.49
9+20.72	788.19	763.92	774.48

◪ = LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

SEGMENT B WALL ELEV. ◪

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
9+20.72	788.19	763.92	774.48
9+30.00	788.16	763.73	774.43
9+39.63	788.13	763.54	773.88

SEGMENT C WALL ELEV. ◪

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
9+39.63	779.59	763.54	773.88
9+45.22	779.59	763.43	773.97
9+58.30	779.59	763.50	773.75
9+68.30	779.59	763.57	773.58
9+78.30	779.59	763.64	773.41
9+88.30	779.59	763.72	773.25
9+98.30	779.59	763.81	773.08
10+08.30	779.59	763.89	772.91
10+18.30	779.59	763.98	772.74
10+28.30	779.59	764.07	772.57
10+38.30	779.59	764.15	772.4
10+48.30	779.59	764.24	772.23
10+58.30	779.59	764.32	772.06
10+68.30	779.59	764.41	771.90
10+78.30	779.59	764.49	771.73
10+88.30	779.59	764.58	771.56
10+98.30	779.59	764.66	771.39
11+11.38	779.59	764.78	771.17
11+17.79	779.59	768.28	773.44

SEGMENT D WALL ELEV. ◪

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
11+17.79	787.86	768.28	773.44
11+27.43	787.91	771.77	776.85
11+36.70	787.95	775.27	778.74

SEGMENT E WALL ELEV. ◪

STATION	TOP OF WALL EL	FINISHED GRADE EL	EXISTING GROUND EL
11+36.70	787.95	775.27	778.74
11+47.43	788.00	778.76	779.42
11+57.43	788.04	782.26	780.81
11+67.43	788.08	785.76	780.92
11+77.43	788.11	787.87	781.18

◪ = LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

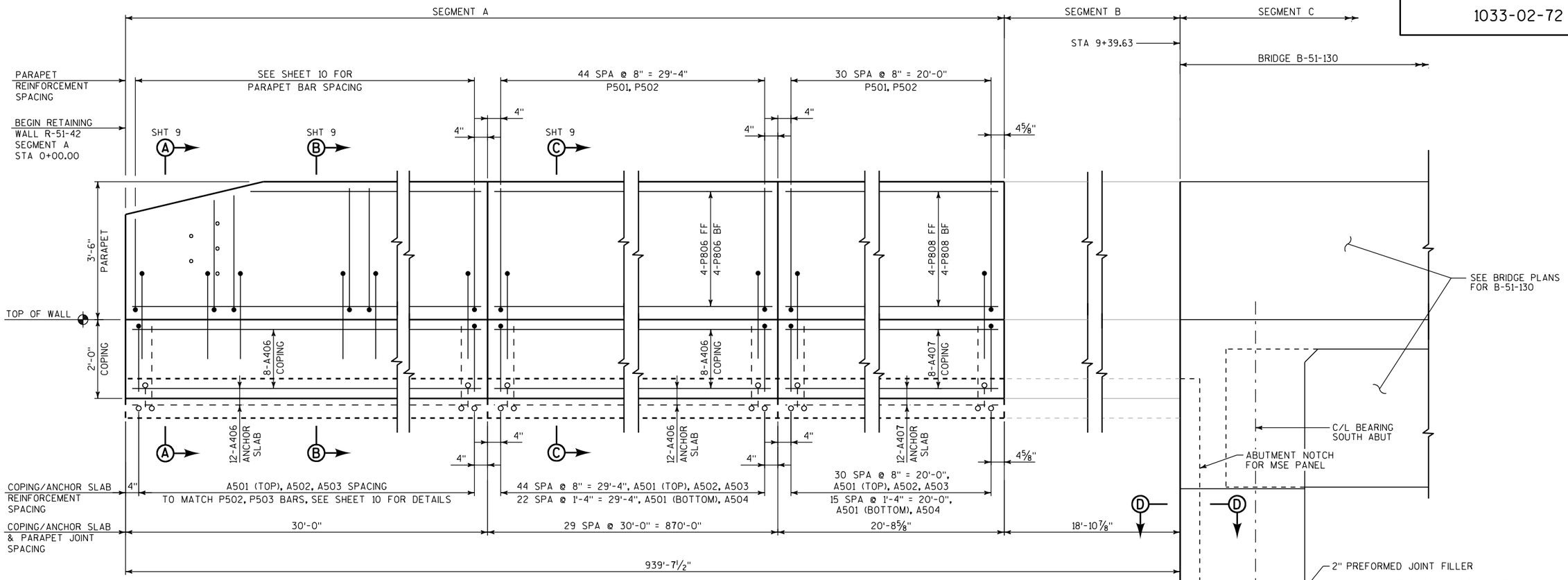
DRAWN BY TEK | PLANS CK'D. EKM

WALL ELEVATION TABLES

SHEET 5 OF 19

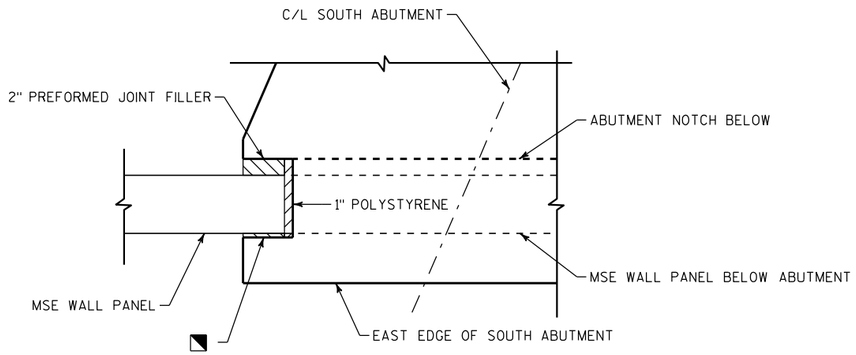
570

STATE PROJECT NUMBER
1033-02-72



ELEVATION OF COPING & PARAPET

(LOOKING WEST AT FRONT FACE OF WALL)
(SEGMENTS A & B)



SECTION D-D

SOUTH ABUTMENT OF B-51-130 SHOWN

LEGEND

◥ = ½" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR OF JOINT SEALER TO BE MATCH CONCRETE STAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY TEK | PLANS CK'D. EKM

SEGMENTS A & B PARAPET & COPING ELEVATION

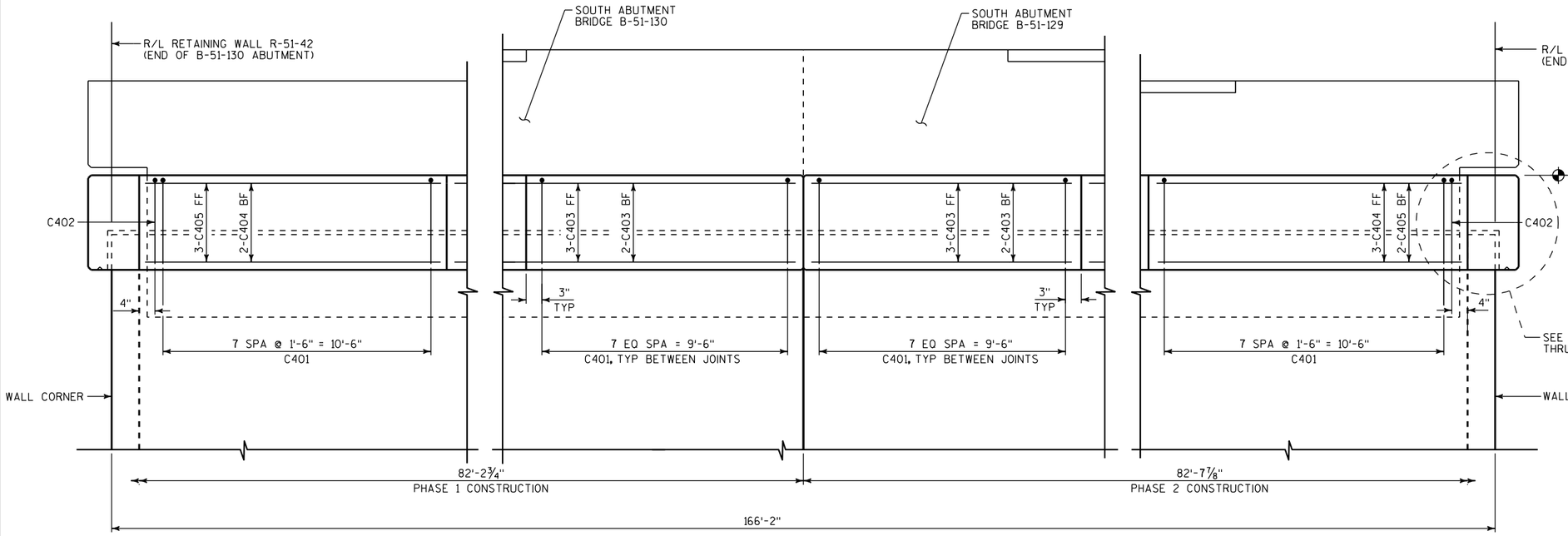
SHEET 6 OF 19

571

8

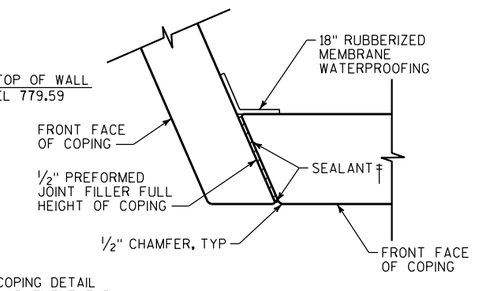
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STATE PROJECT NUMBER
1033-02-72



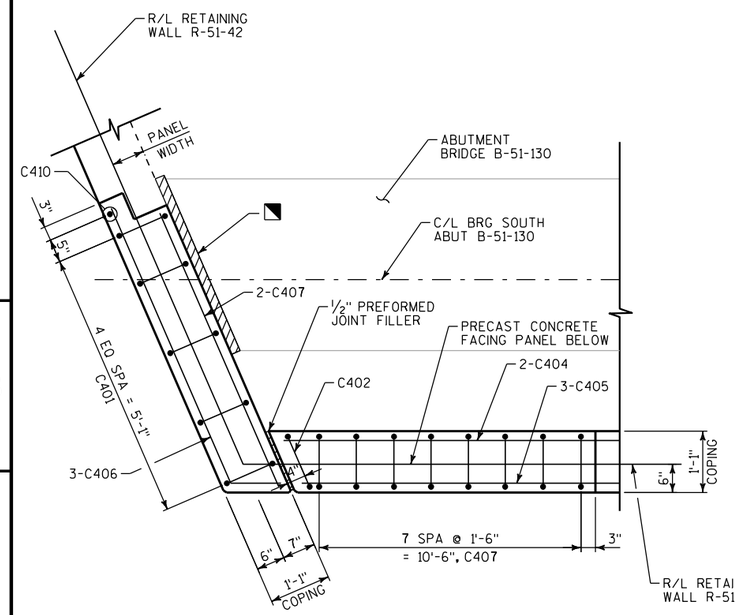
COPING ELEVATION AT ABUTMENT

(LOOKING SOUTH AT FRONT FACE OF WALL - SEGMENT C)

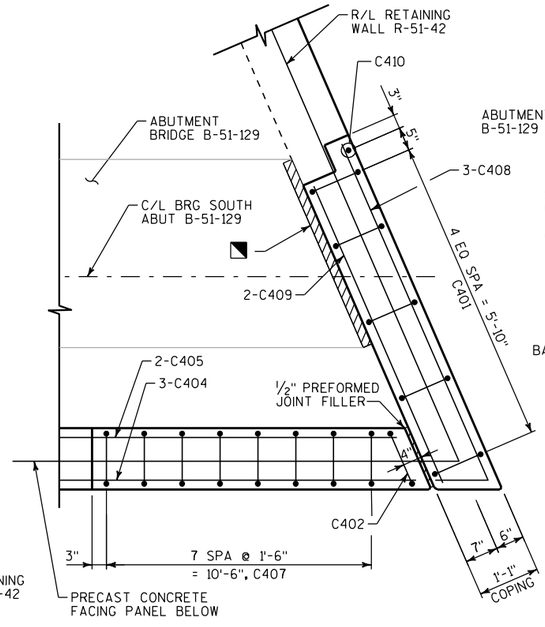


COPING EXPANSION JOINT

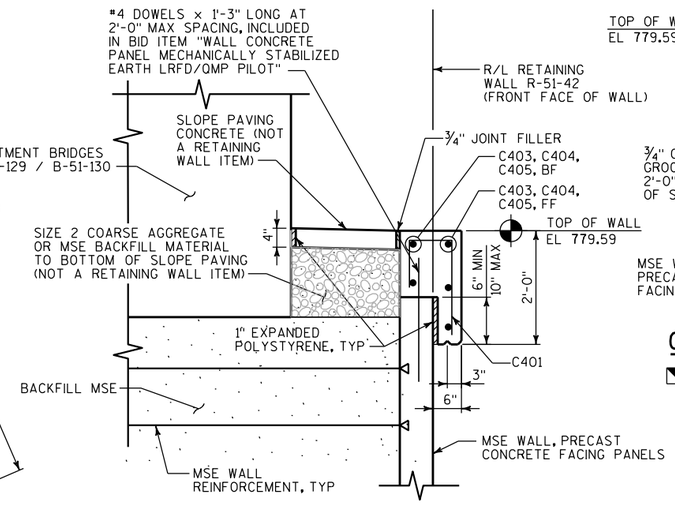
† NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE)



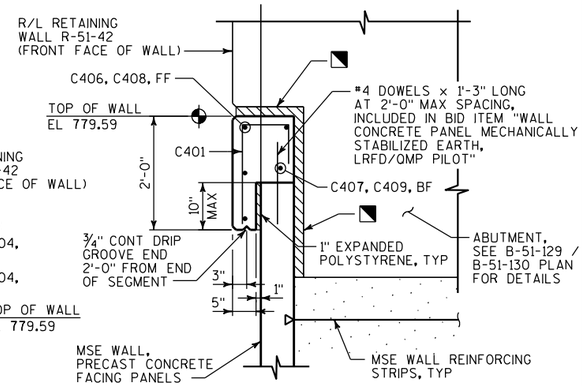
EAST CORNER DETAIL



WEST CORNER DETAIL



COPING DETAIL AT ABUTMENT



COPING DETAIL THRU ABUTMENT

= 2" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY: TEK | PLANS CK'D.: EKM

SEGMENT C
COPING ELEVATION
& DETAILS

SHEET 7 OF 19

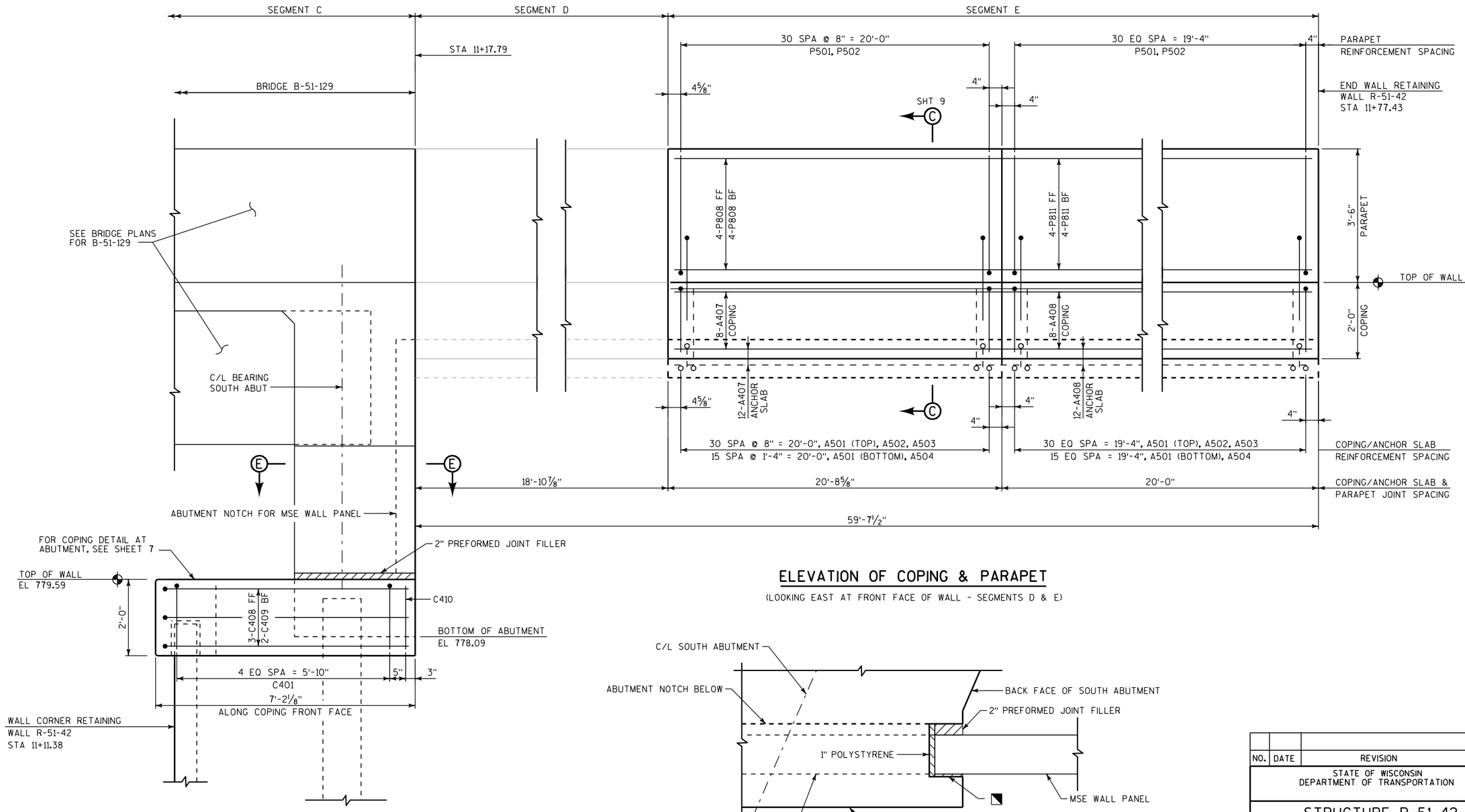
572

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8

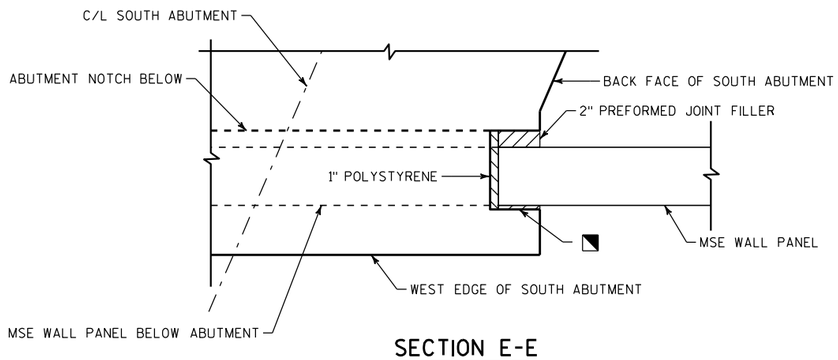
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STATE PROJECT NUMBER
1033-02-72



ELEVATION OF COPING & PARAPET

(LOOKING EAST AT FRONT FACE OF WALL - SEGMENTS D & E)



SECTION E-E

SOUTH ABUTMENT OF B-51-129 SHOWN

LEGEND

◥ = 1/2" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR OF JOINT SEALER TO BE MATCH CONCRETE STAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY TEK | PLANS CK'D. EKM

SEGMENTS D & E PARAPET & COPING ELEVATION

SHEET 8 OF 19

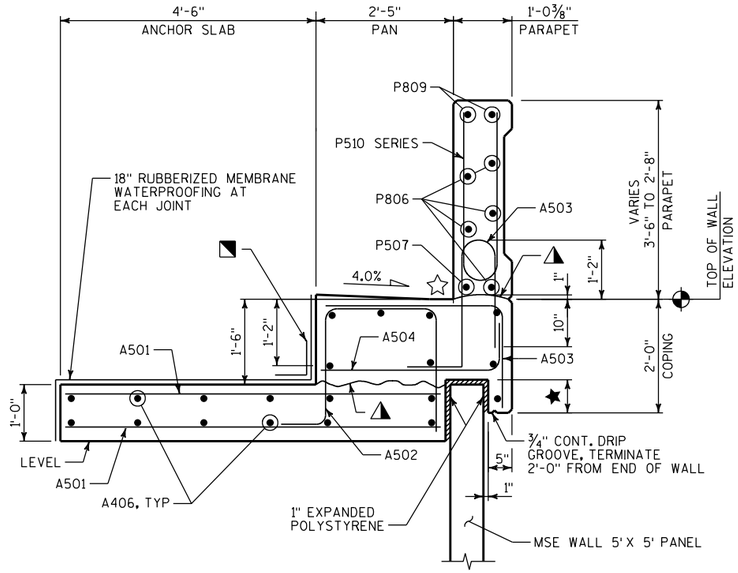
573

8

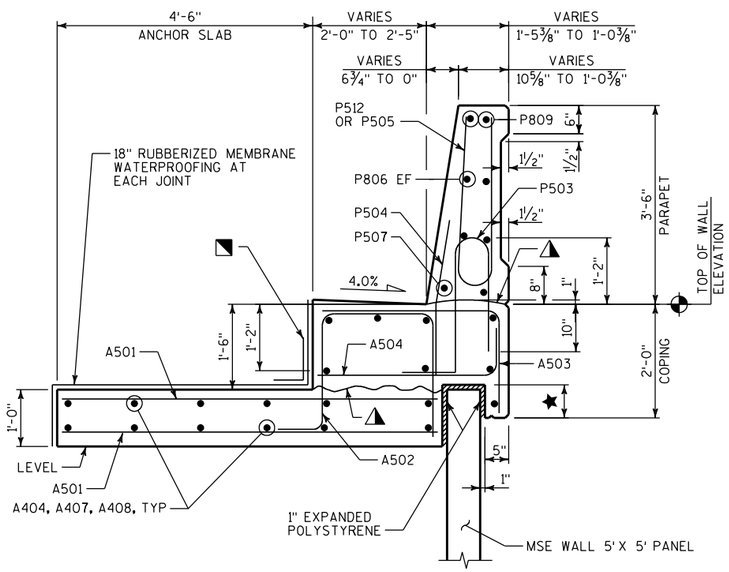
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STATE PROJECT NUMBER

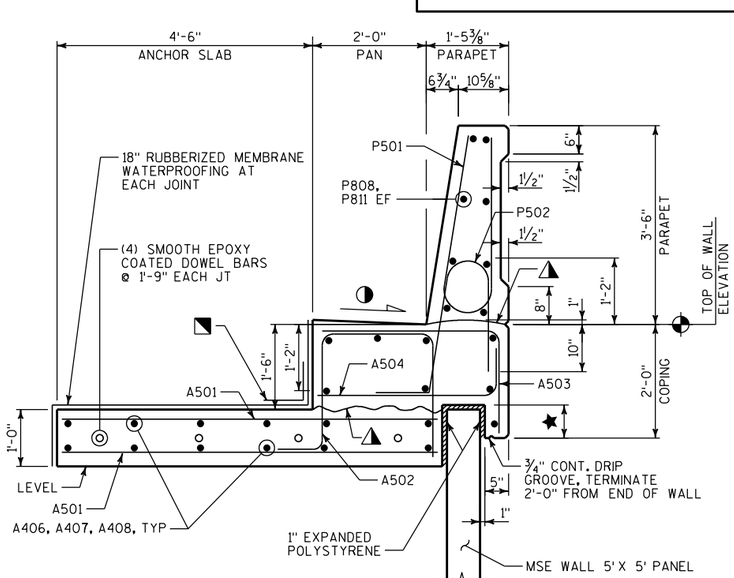
1033-02-72



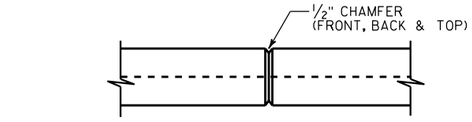
SECTION A-A



SECTION B-B

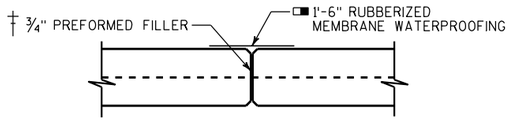


SECTION C-C



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.

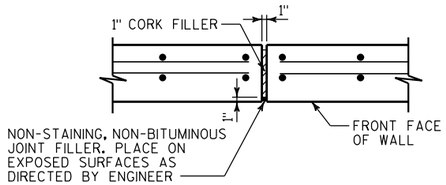


COPING EXPANSION JOINT

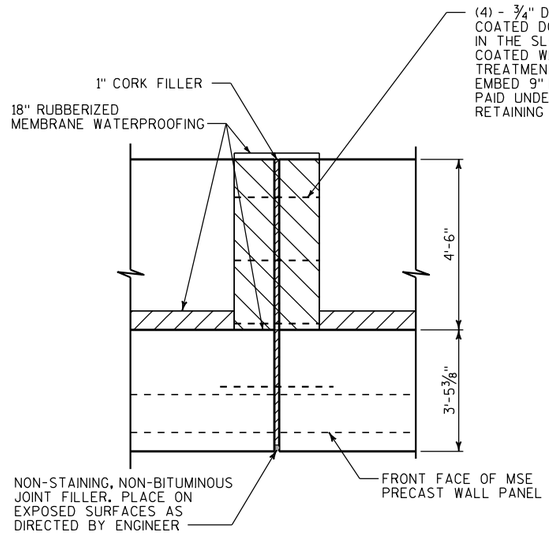
DO NOT RUN BAR STEEL THRU JOINT.

† SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)

▬ MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.



PARAPET EXPANSION JOINT



ANCHOR SLAB EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT, EXCEPT FOR DOWEL BARS AS SHOWN. FOR LOCATION OF JOINTS SEE GENERAL PLAN & ELEVATION SHEETS.

LEGEND

◭ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH

† NON-BITUMINOUS JOINT SEALER, COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE)

◑ 4.0% TYP - SEGMENT A. TRANSITION PAN SLOPE LINEARLY 4.0% TO 2.0% FROM STA 8+95.72 TO STA 9+20.72 (SEGMENT A).
2.0% TYP - SEGMENT E

★ 3" MIN, 6" MAX

◥ 18" RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT

☆ 5", LEVEL

NOTE

SEE GENERAL PLAN & ELEVATION SHEET FOR LOCATION OF CONTRACTION / EXPANSION JOINTS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY TEK | PLANS CK'D. EKM

PARAPET, ANCHOR SLAB & COPING DETAILS

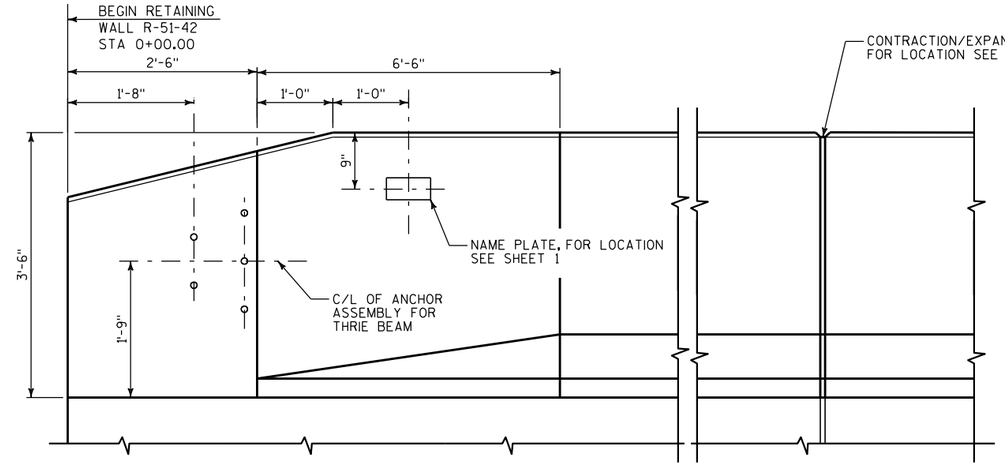
SHEET 9 OF 19

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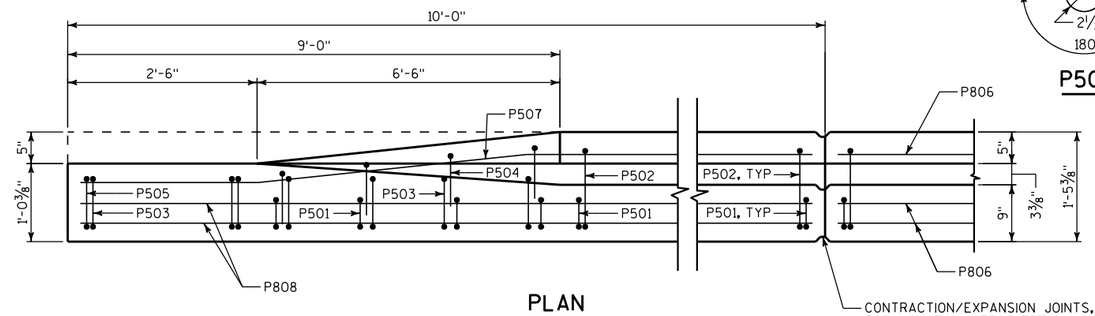
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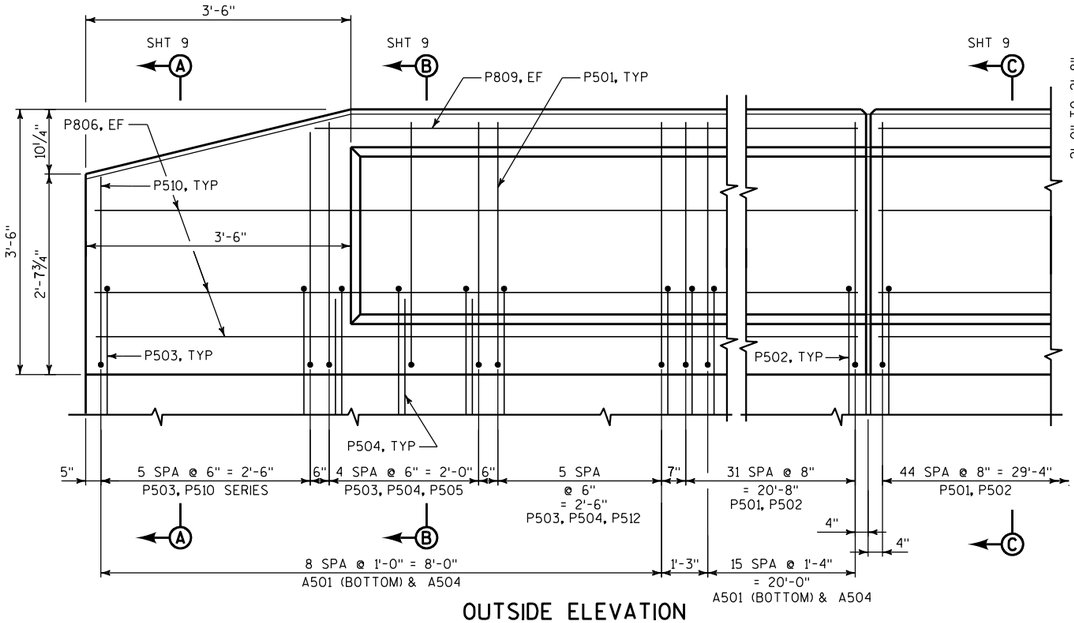
STATE PROJECT NUMBER
1033-02-72



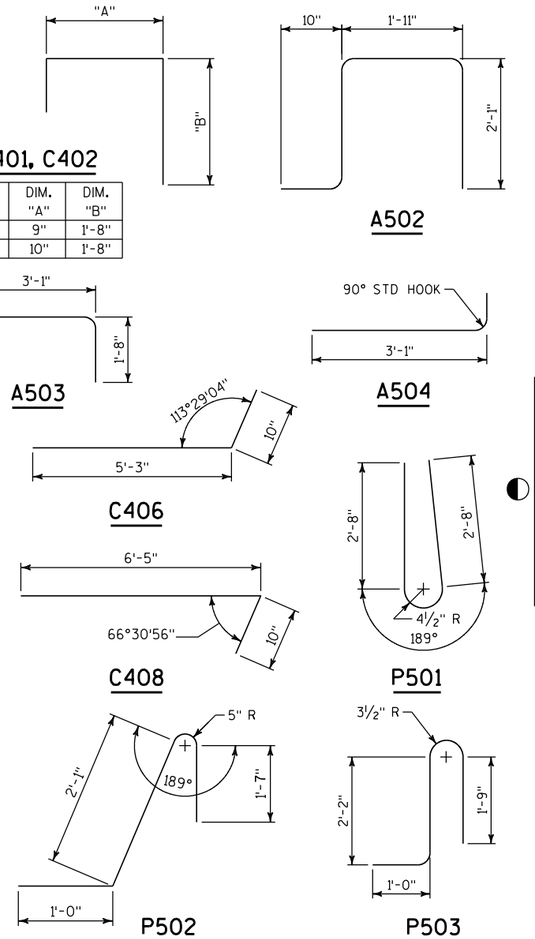
INSIDE ELEVATION

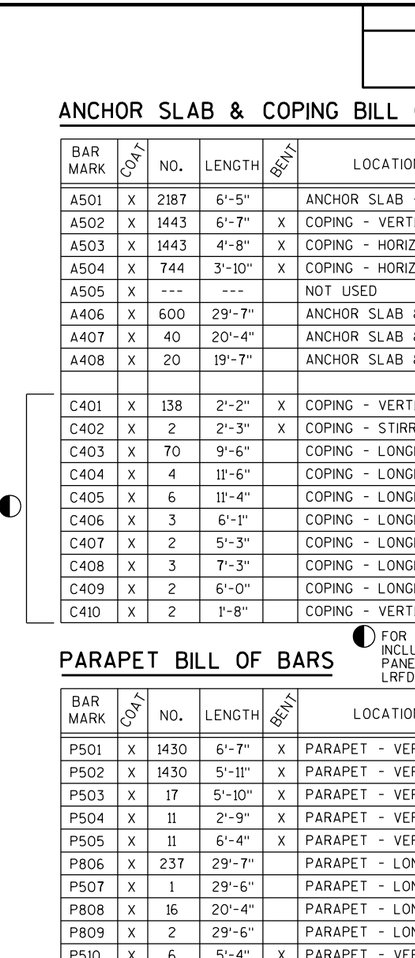


PLAN



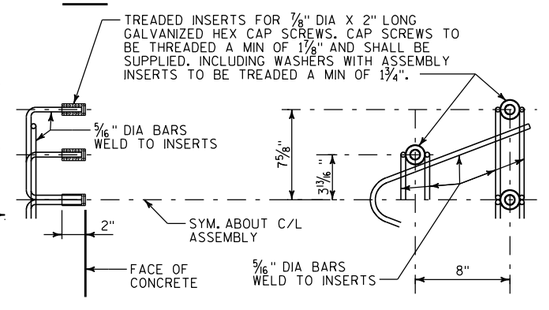
OUTSIDE ELEVATION



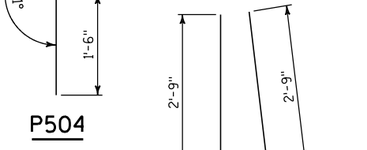


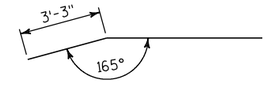
BAR SERIES TABLE

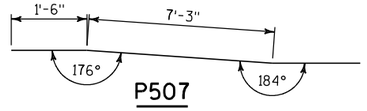
BAR MARK	NO. REQ'D	LENGTH
P510	1 SERIES OF 6	4'-9" TO 6'-1"



DETAIL OF ANCHOR ASSEMBLY







ANCHOR SLAB & COPING BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
A501	X	2187	6'-5"		ANCHOR SLAB - HORIZONTAL TOP & BOTTOM
A502	X	1443	6'-7"	X	COPING - VERTICAL TIE
A503	X	1443	4'-8"	X	COPING - HORIZONTAL TIE
A504	X	744	3'-10"	X	COPING - HORIZONTAL TIE
A505	X	---	---		NOT USED
A406	X	600	29'-7"		ANCHOR SLAB & COPING - LONGITUDINAL
A407	X	40	20'-4"		ANCHOR SLAB & COPING - LONGITUDINAL
A408	X	20	19'-7"		ANCHOR SLAB & COPING - LONGITUDINAL
C401	X	138	2'-2"	X	COPING - VERTICAL TIE
C402	X	2	2'-3"	X	COPING - STIRRUP
C403	X	70	9'-6"		COPING - LONGITUDINAL
C404	X	4	11'-6"		COPING - LONGITUDINAL
C405	X	6	11'-4"		COPING - LONGITUDINAL
C406	X	3	6'-1"		COPING - LONGITUDINAL
C407	X	2	5'-3"		COPING - LONGITUDINAL
C408	X	3	7'-3"		COPING - LONGITUDINAL
C409	X	2	6'-0"		COPING - LONGITUDINAL
C410	X	2	1'-8"		COPING - VERTICAL

◐ FOR INFORMATION ONLY. THESE BARS ARE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH, LRFD/OMP PILOT".

PARAPET BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
P501	X	1430	6'-7"	X	PARAPET - VERTICAL TIE
P502	X	1430	5'-11"	X	PARAPET - VERTICAL TIE
P503	X	17	5'-10"	X	PARAPET - VERTICAL TIE
P504	X	11	2'-9"	X	PARAPET - VERTICAL TIE
P505	X	11	6'-4"	X	PARAPET - VERTICAL TIE
P806	X	237	29'-7"		PARAPET - LONGITUDINAL
P507	X	1	29'-6"		PARAPET - LONGITUDINAL BOTTOM
P808	X	16	20'-4"		PARAPET - LONGITUDINAL
P809	X	2	29'-6"		PARAPET - LONGITUDINAL
P510	X	6	5'-4"	X	PARAPET - VERTICAL TIE SERIES ⚠
P811	X	8	19'-7"		PARAPET - LONGITUDINAL
P512	X	6	6'-5"	X	PARAPET - VERTICAL TIE

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY: TEK | PLANS CK'D.: EKM

SINGLE SLOPED PARAPET 42SS (MODIFIED)

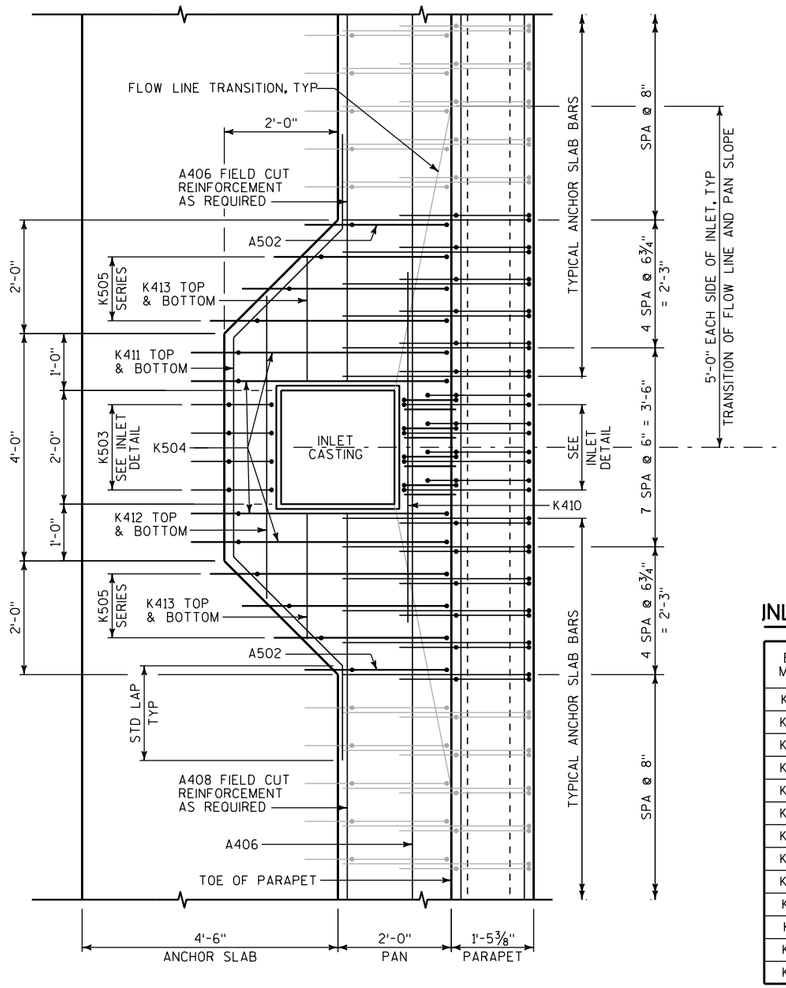
SHEET 10 OF 19

575

8

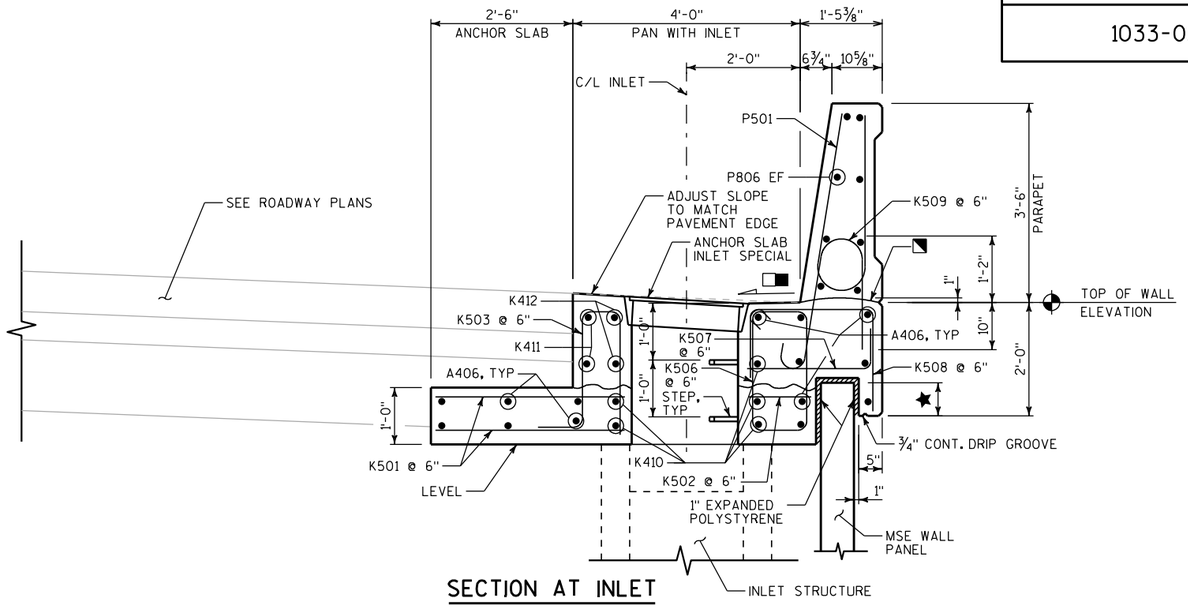
8

STATE PROJECT NUMBER
1033-02-72



TYPICAL PARAPET AND ANCHOR SLAB PLAN AT INLET STRUCTURE

NOTE: CUT, BEND, OR DISPLACE REINFORCEMENT 2" CLEAR OF INLET STRUCTURE AS REQUIRED.



SECTION AT INLET

INLET BILL OF BARS

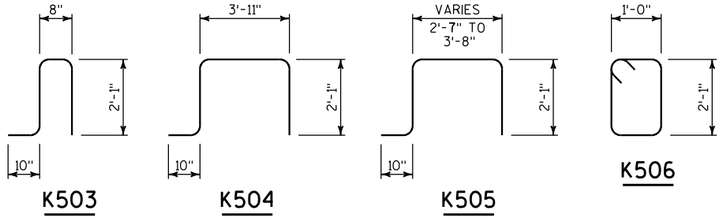
BAR MARK	COAT	NO. REQ'D	TOTAL NO. REQ'D	LENGTH	BENT	SERIES	LOCATION
K501	X	8	24	3'-2"			ANCHOR SLAB - HORIZONTAL TOP & BOTTOM
K502	X	4	16	1'-0"			ANCHOR SLAB - HORIZONTAL TOP
K503	X	4	16	5'-4"	X		COPING - VERTICAL TIE
K504	X	4	16	8'-7"	X		COPING - VERTICAL TIE
K505	X	6	24	7'-9"	X	△	COPING - VERTICAL TIE
K506	X	4	16	6'-7"	X		COPING - VERTICAL STIRRUP
K507	X	4	16	2'-6"	X		COPING - VERTICAL TIE
K508	X	4	16	4'-8"	X		COPING - VERTICAL TIE
K509	X	4	16	5'-5"	X		COPING - VERTICAL TIE
K410	X	5	20	6'-6"			ANCHOR SLAB & COPING - LONGITUDINAL
K411	X	2	8	14'-0"	X		COPING - LONGITUDINAL
K412	X	2	8	5'-1"			COPING - LONGITUDINAL
K413	X	4	16	2'-0"			COPING - LONGITUDINAL

NOTES

BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES BAR SIZE.

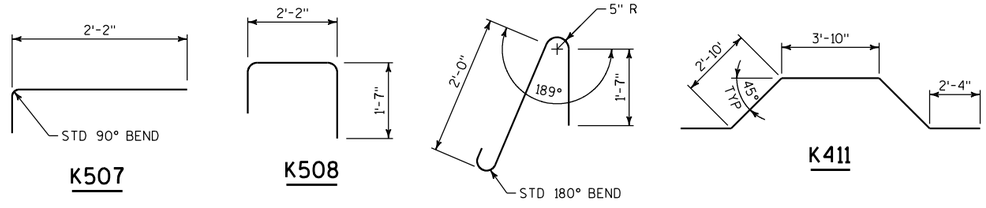
BAR SCHEDULE NO. REQ'D FOR ONE INLET ONLY. SEE TOTAL NO. REQ'D FOR TOTAL BARS REQUIRED FOR THE ENTIRE RETAINING WALL.

△ LENGTH USED FOR BAR IS AN AVERAGE LENGTH AND SOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
K505	2 SERIES OF 3	7'-3" TO 8'-4"



STEP NOTES

INLET STEPS SHALL MEET AASHTO M199 AND THE FOLLOWING REQUIREMENTS: PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT: MINIMUM LENGTH OF 10 INCHES: MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST COROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH. STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BARS ARE ACCEPTABLE. CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

THE COST OF FURNISHING AND INSTALLING INLET MANHOLE STEPS IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY RETAINING WALLS".

INLET LOCATIONS

STATION	INLET STRUCTURE NO.
2+25.00	136
5+25.00	132A
5+55.00	132
8+85.00	126

LEGEND

- 2.00%
- ★ 3" MIN, 6" MAX
- CONST. JT. STRIKE OFF AS SHOWN AND LEAVE ROUGH

NOTES

STEP SHALL COMPLY WITH ASTM C-478.

STEP IS INCIDENTAL TO BID ITEM "CONCRETE MASONRY RETAINING WALLS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY TEK | PLANS CK'D. EKM

INLET DETAILS

SHEET 11 OF 19

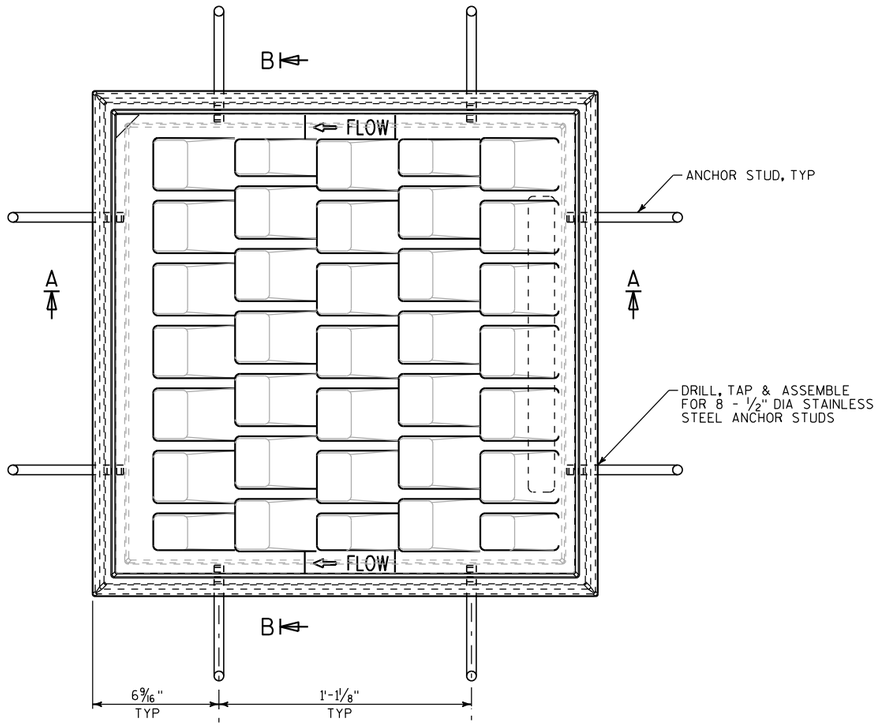
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PLOT NAME : R42_080602_in
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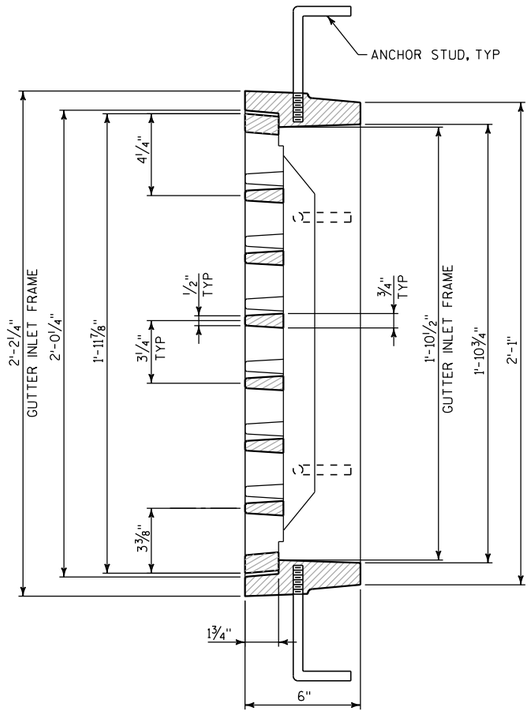
STATE PROJECT NUMBER

1033-02-72

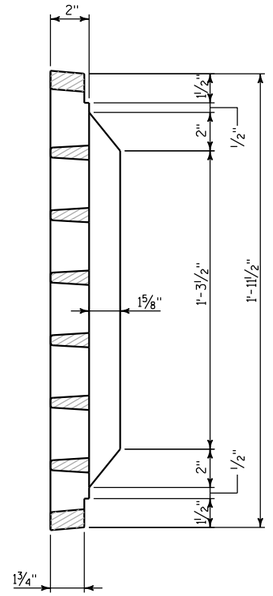


GUTTER INLET FRAME & GRATE TOP

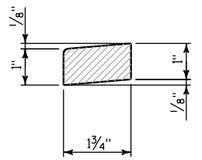
(SEE GENERAL PLAN & ELEVATION SHEET FOR LOCATIONS)



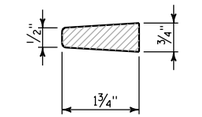
SECTION B-B



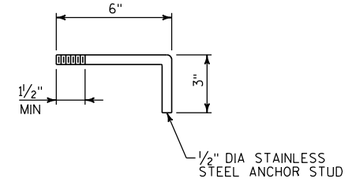
INLET GRATE



SIDE RIB DETAIL

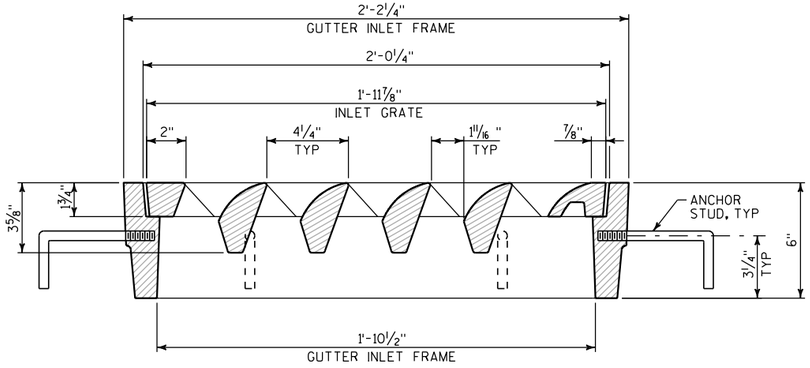


MIDDLE RIB DETAIL

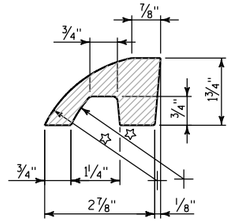


ANCHOR STUD DETAIL

(8 - 1/2" DIA STAINLESS STEEL ANCHOR STUDS REQUIRED)

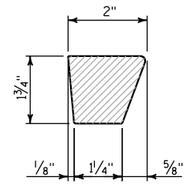


SECTION A-A

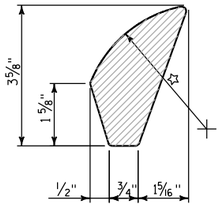


FRONT VANE DETAIL

☆ 3 1/4" RADIUS



BACK VANE DETAIL



VANE DETAIL

☆ 3 1/4" RADIUS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

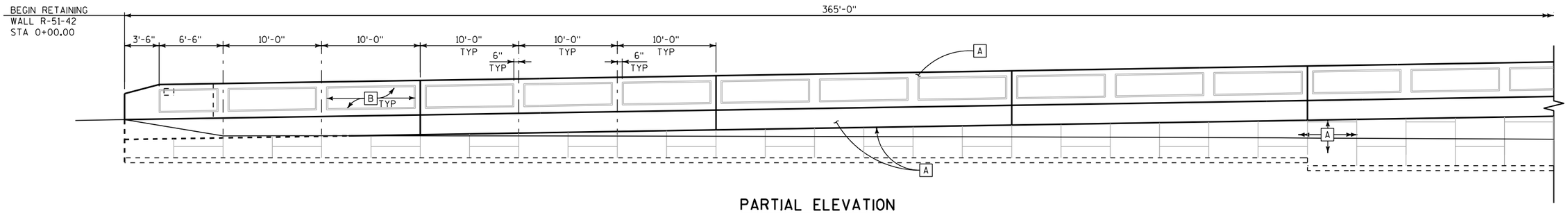
DRAWN BY TEK | PLANS CK'D. EKM

ANCHOR SLAB INLET COVER SPECIAL

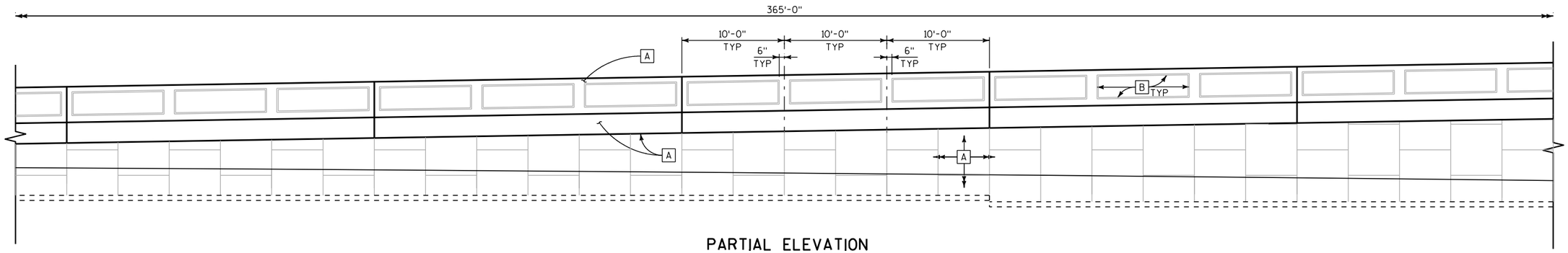
SHEET 12 OF 19

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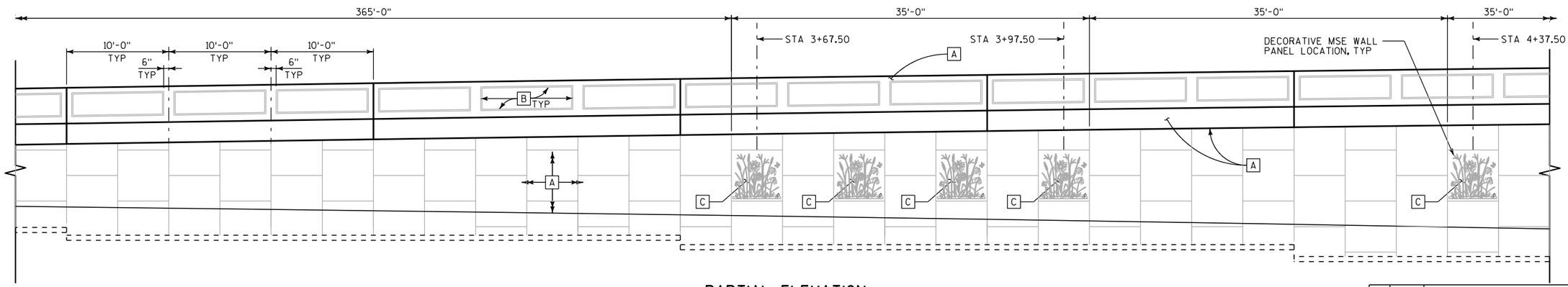
STATE PROJECT NUMBER
1033-02-72



PARTIAL ELEVATION



PARTIAL ELEVATION



PARTIAL ELEVATION

NOTE

SEE SHEET 16 OF 19 FOR
CONCRETE STAINING SCHEDULE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY	TEK	PLANS CK'D.	EKM

SEGMENT A
AESTHETIC
ELEVATION (1 OF 2)

SHEET 13 OF 19

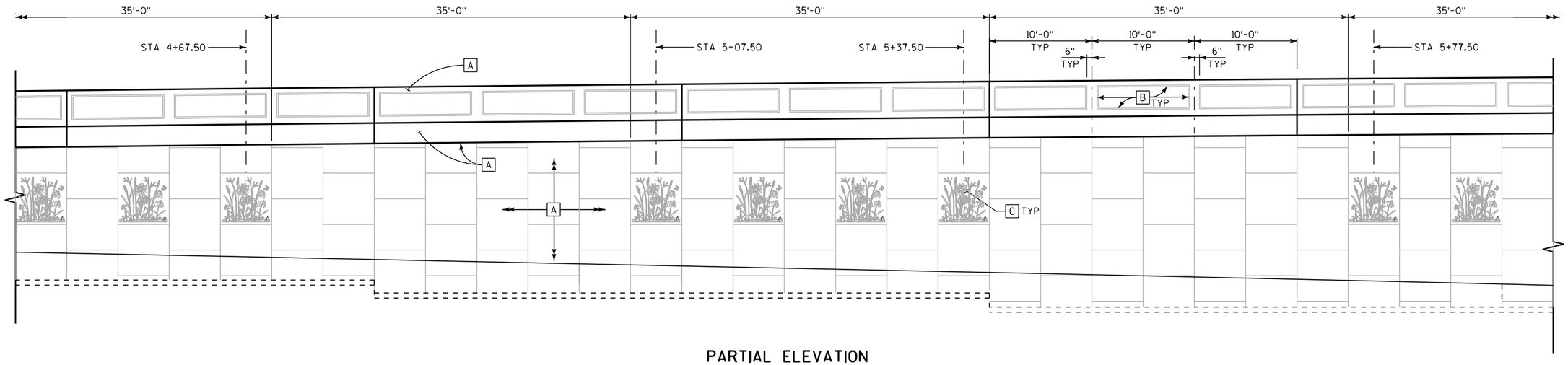
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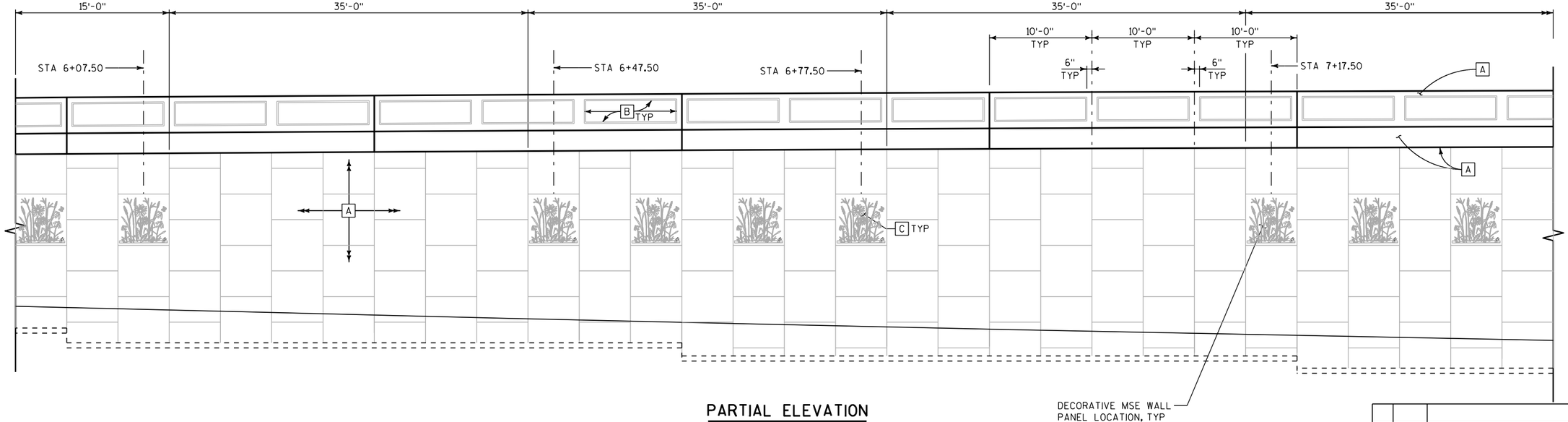
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STATE PROJECT NUMBER
1033-02-72



PARTIAL ELEVATION



PARTIAL ELEVATION

NOTE

SEE SHEET 16 OF 19 FOR CONCRETE STAINING SCHEDULE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY	TEK	PLANS CK'D.	EKM

SEGMENT A AESTHETIC ELEVATION (2 OF 2)

SHEET 14 OF 19

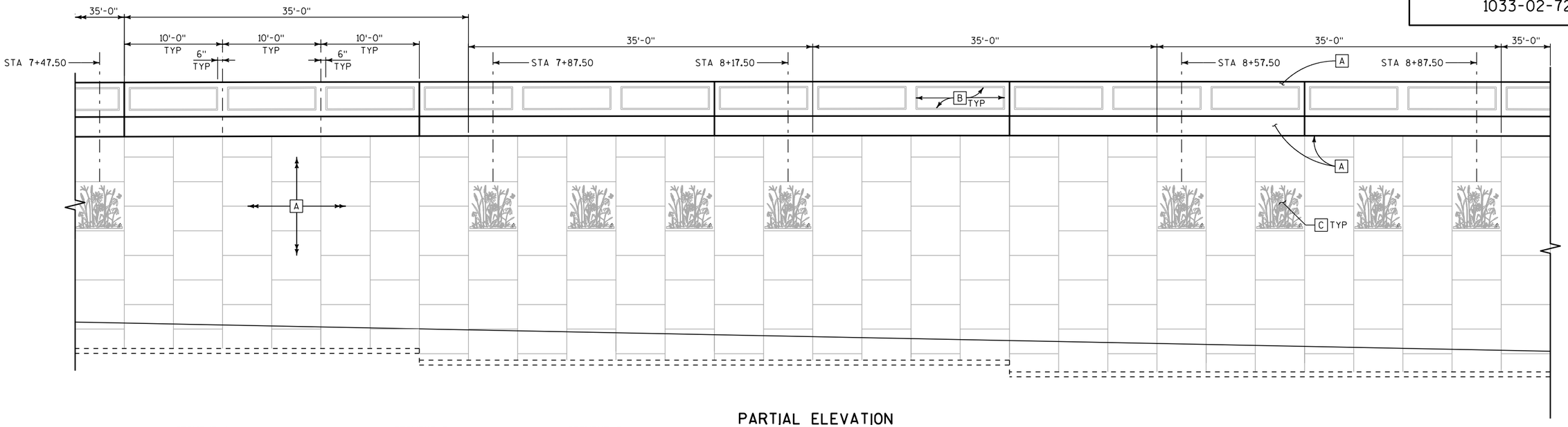
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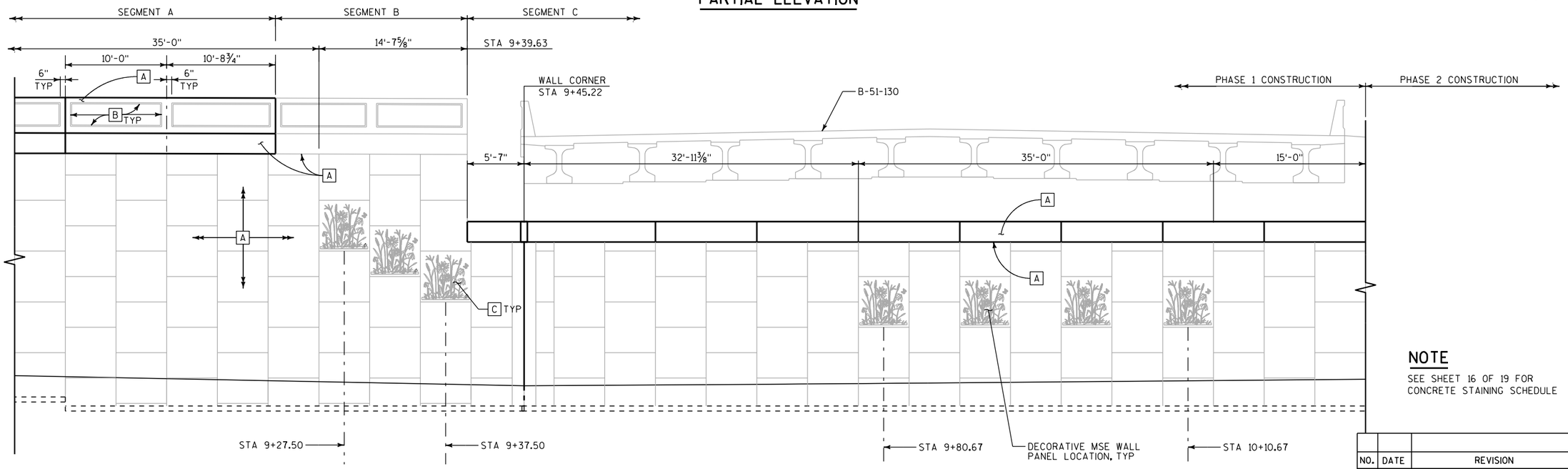
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STATE PROJECT NUMBER
1033-02-72



PARTIAL ELEVATION



PARTIAL ELEVATION

NOTE

SEE SHEET 16 OF 19 FOR CONCRETE STAINING SCHEDULE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY TEK | PLANS CK'D. EKM

SEGMENTS B & C AESTHETIC ELEVATION

SHEET 15 OF 19

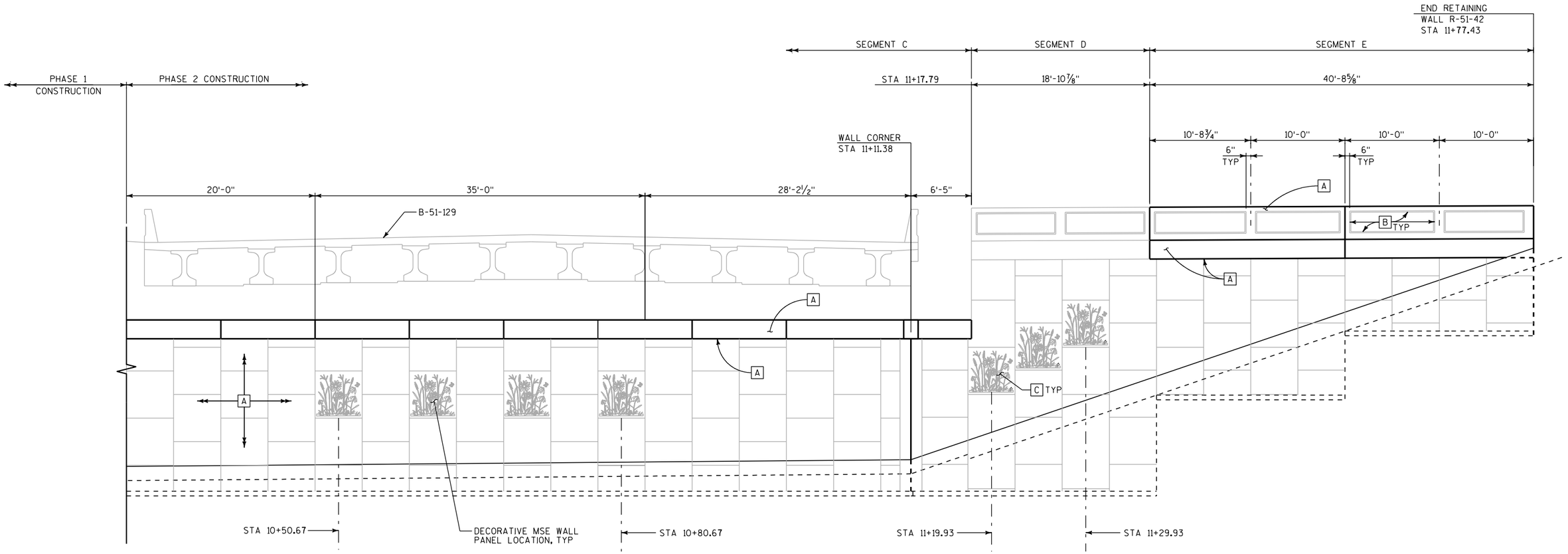
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STATE PROJECT NUMBER
1033-02-72



PARTIAL ELEVATION

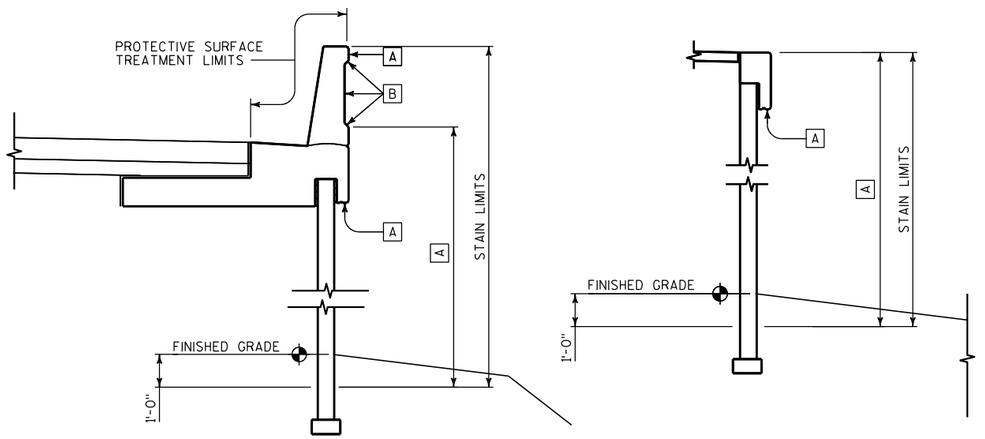
CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION	NOTES
A	BASE COLOR	VERTICAL FACE PARAPET	BOTH SIDES, EXCEPT AS NOTED FOR ACCENT COLORS
		WALLS	EXPOSED FACES TO 1'-0" BELOW FINAL GRADE
B	ACCENT COLOR #1	VERTICAL FACE PARAPET	RECESSED PANELS ON BOTH SIDES, INCLUDING FILLETS
C	ACCENT COLOR #2	DECORATIVE PANEL	RECESSED AREAS

STAIN COLORS

THE FINAL COLOR OF THE CONCRETE FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:

BASE COLOR : 33564
ACCENT COLOR #1: 33448
ACCENT COLOR #2: 20170



MSE WALL STAINING DIAGRAM

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY TEK | PLANS CK'D. EKM

SEGMENTS C, D, & E
AESTHETIC
ELEVATION

SHEET 16 OF 19

581

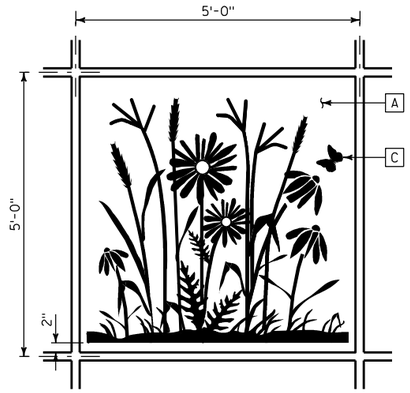
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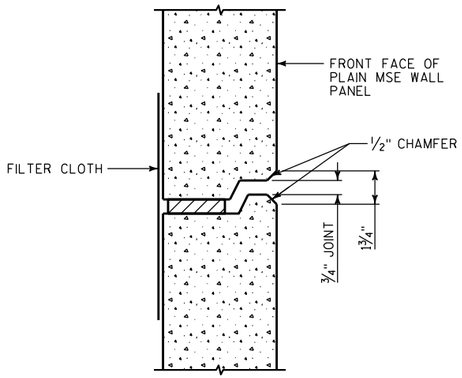
STATE PROJECT NUMBER

1033-02-72



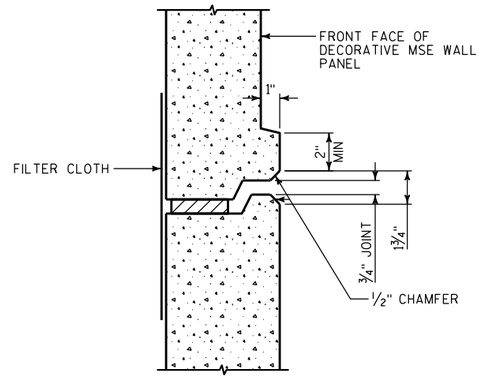
DECORATIVE MSE PANEL

"PRAIRIE PATTERN"



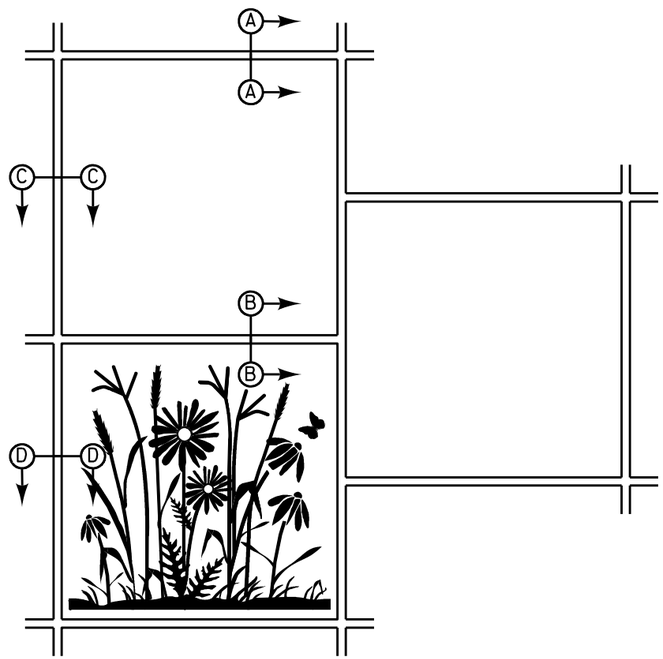
SECTION A-A

HORIZONTAL JOINT @ MSE WALL PANELS

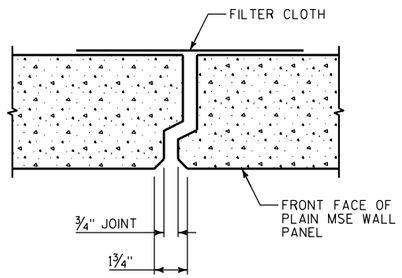


SECTION B-B

HORIZONTAL JOINT @ MSE WALL PANELS

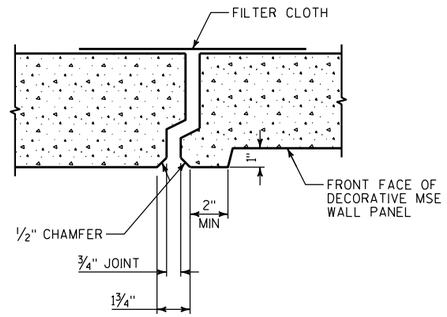


PARTIAL ELEVATION



SECTION C-C

VERTICAL JOINT @ MSE WALL PANELS



SECTION D-D

VERTICAL JOINT @ MSE WALL PANELS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

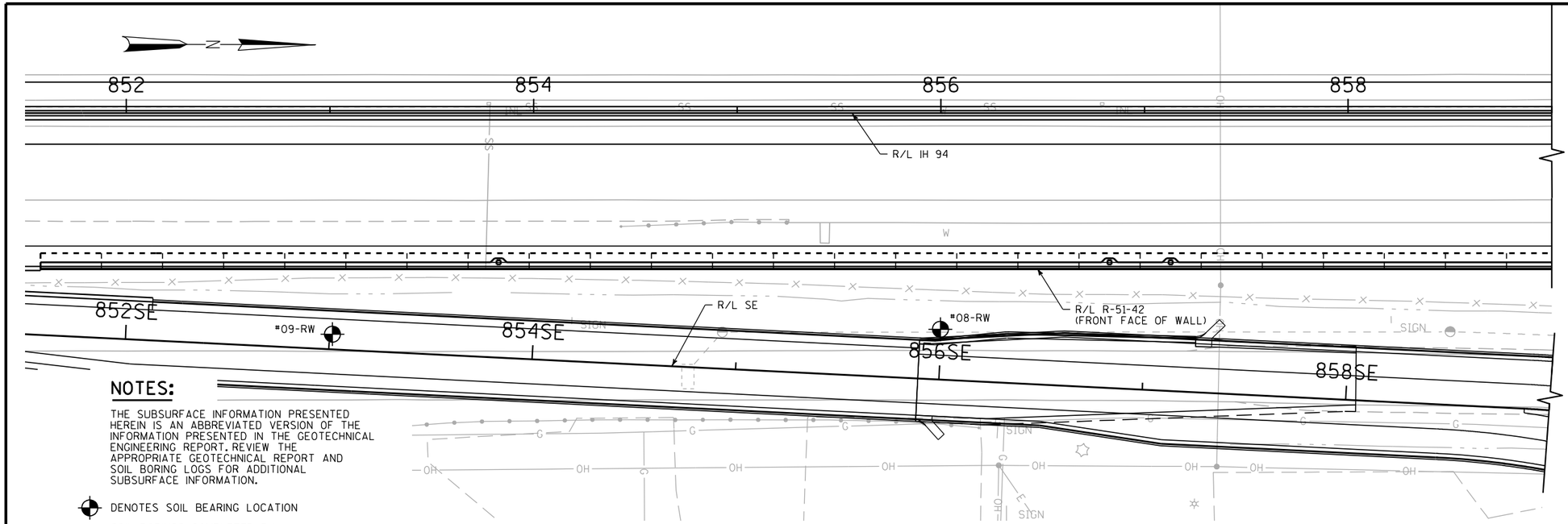
DRAWN BY TEK | PLANS CK'D. EKM

AESTHETIC WALL TREATMENT DETAILS

SHEET 17 OF 19

582

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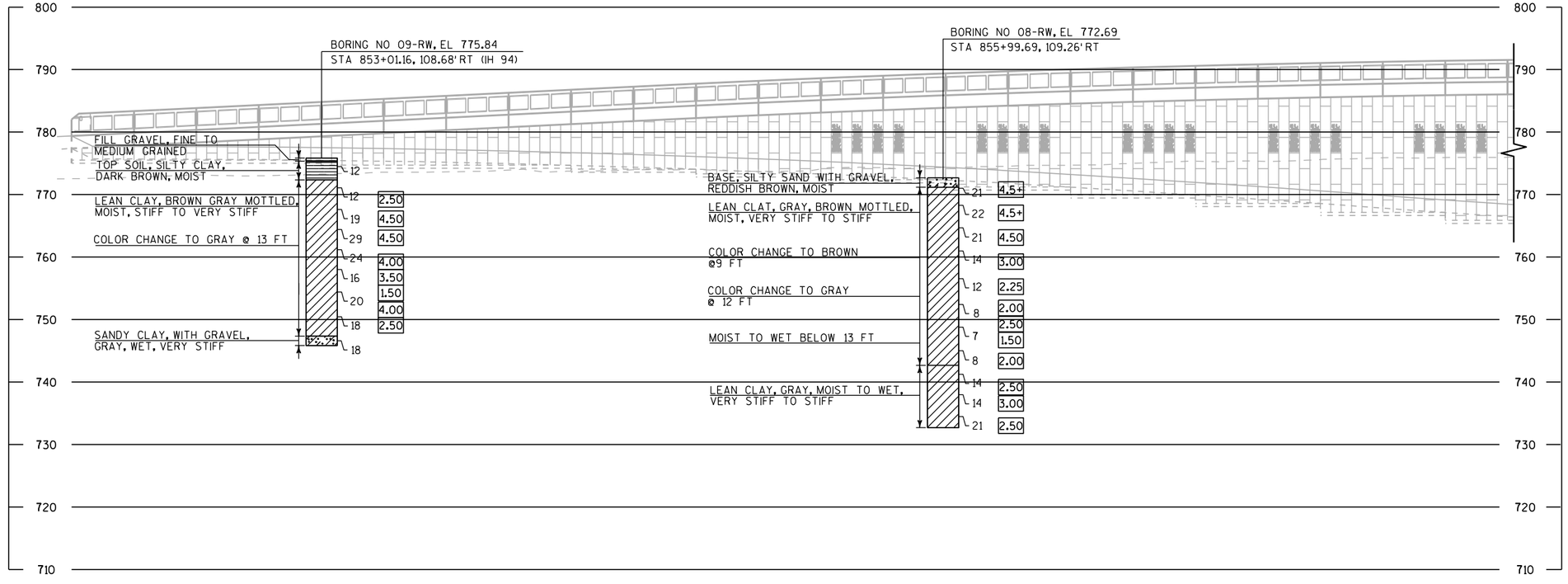
NOTES:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

⌖ DENOTES SOIL BEARING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING, INC.

SOIL BORINGS TAKEN:
MARCH 15, 2007 - BORING 08-RW
MARCH 17, 2007 - BORING 09-RW



STATE PROJECT NUMBER

1033-02-72

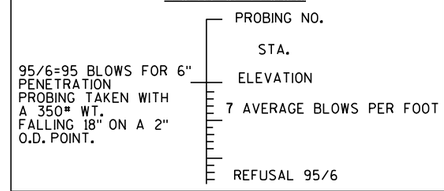
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

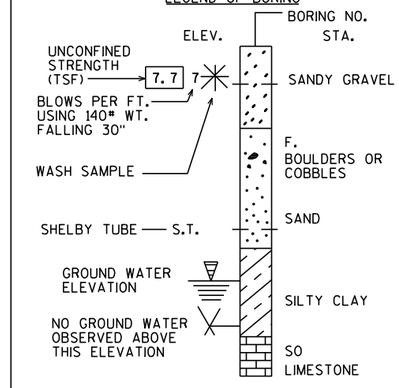
MATERIAL SYMBOLS

TOPSOIL / FILL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

DRAWN BY TEK | PLANS CK'D. EKM

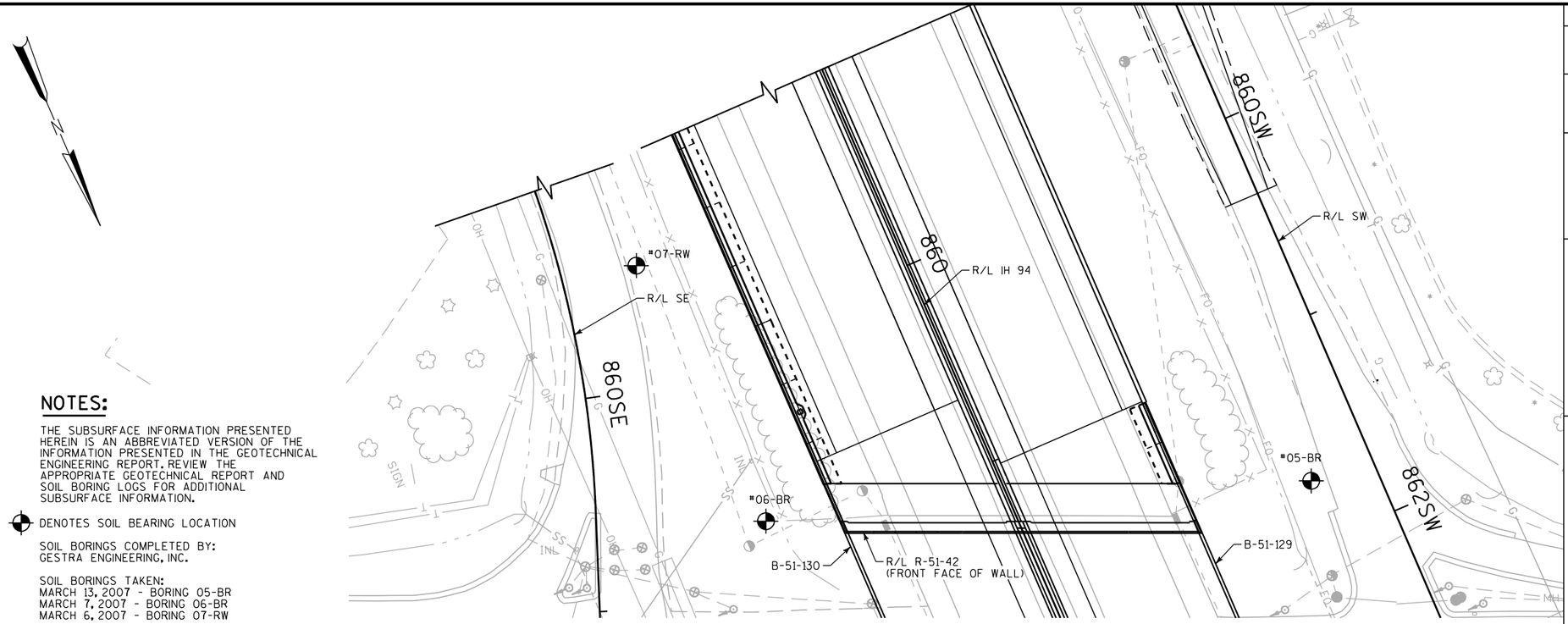
SUBSURFACE EXPLORATION (1 OF 2)

SHEET 18 OF 19

583

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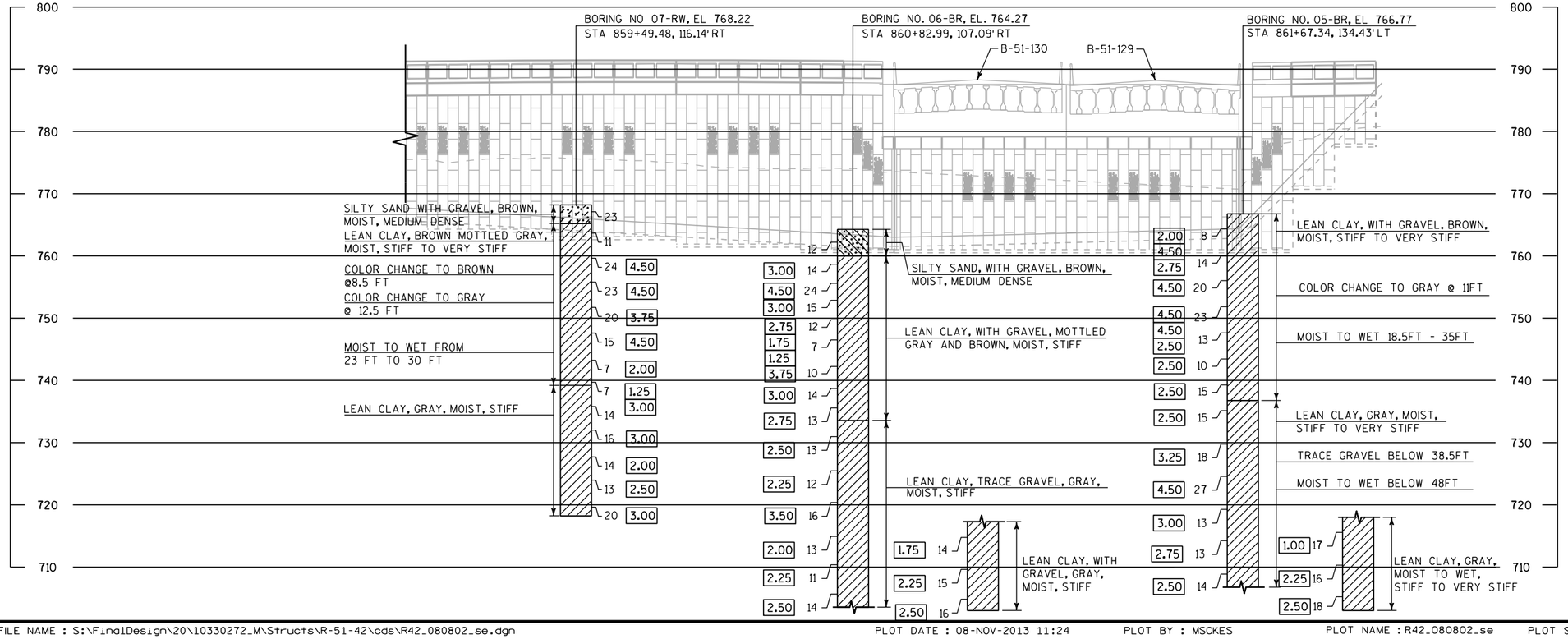
NOTES:

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

⊕ DENOTES SOIL BEARING LOCATION

SOIL BORINGS COMPLETED BY:
GESTRA ENGINEERING, INC.

SOIL BORINGS TAKEN:
MARCH 13, 2007 - BORING 05-BR
MARCH 7, 2007 - BORING 06-BR
MARCH 6, 2007 - BORING 07-RW



LEGEND OF PROBING

95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

PROBING NO.
STA.
ELEVATION
7 AVERAGE BLOWS PER FOOT
REFUSAL 95/6

LEGEND OF BORING

UNCONFINED STRENGTH (TSF) → 7.7 7
BLOWS PER FT. USING 140# WT. FALLING 30"
WASH SAMPLE
SHELBY TUBE — S.T.
GROUND WATER ELEVATION
NO GROUND WATER OBSERVED ABOVE THIS ELEVATION

BORING NO.
ELEV.
STA.
SANDY GRAVEL
F. BOULDERS OR COBBLES
SAND
SILTY CLAY
SO LIMESTONE

UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

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STATE PROJECT NUMBER

1033-02-72

ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

TOPSOIL / FILL, SILT, SANDSTONE, SAND, PEAT, LIMESTONE, GRAVEL, CLAY, IGNEOUS ROCK

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-42

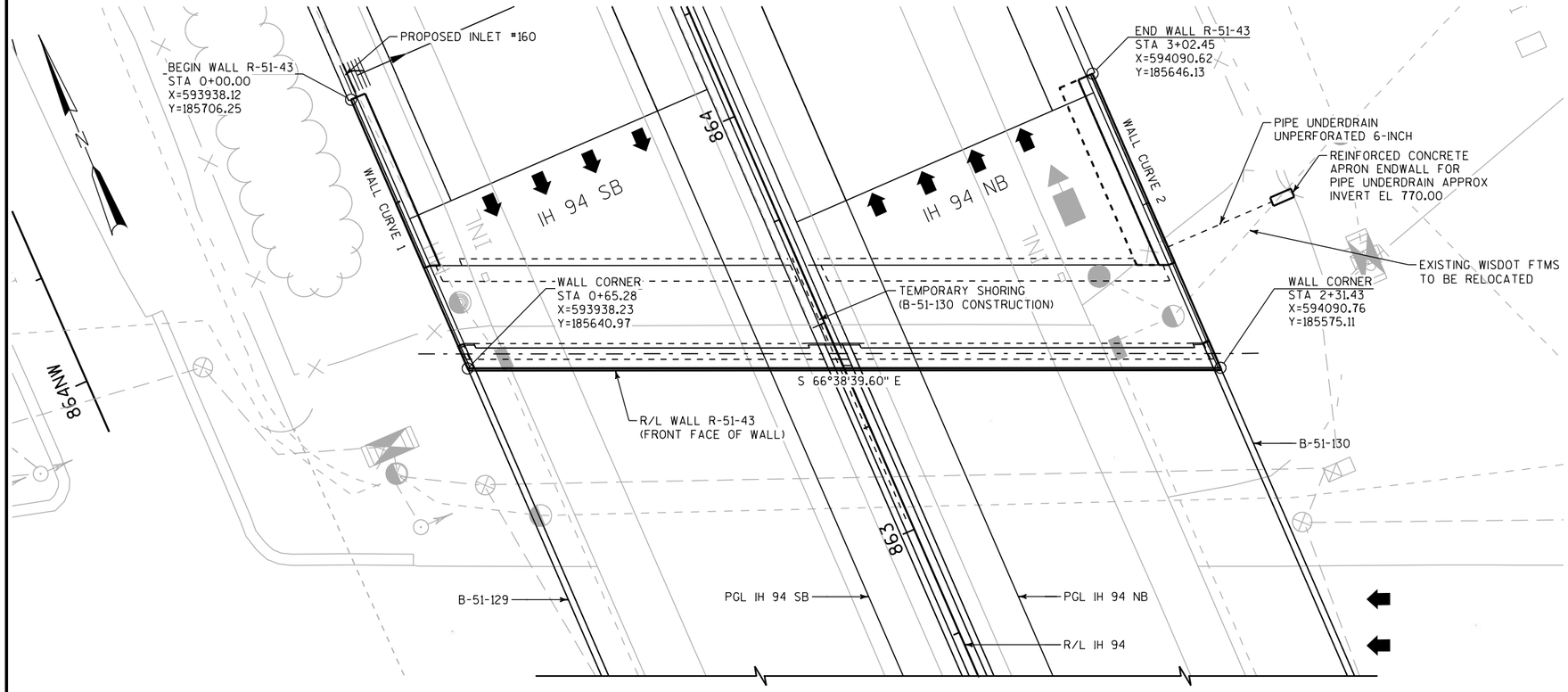
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SUBSURFACE EXPLORATION (2 OF 2)

SHEET 19 OF 19

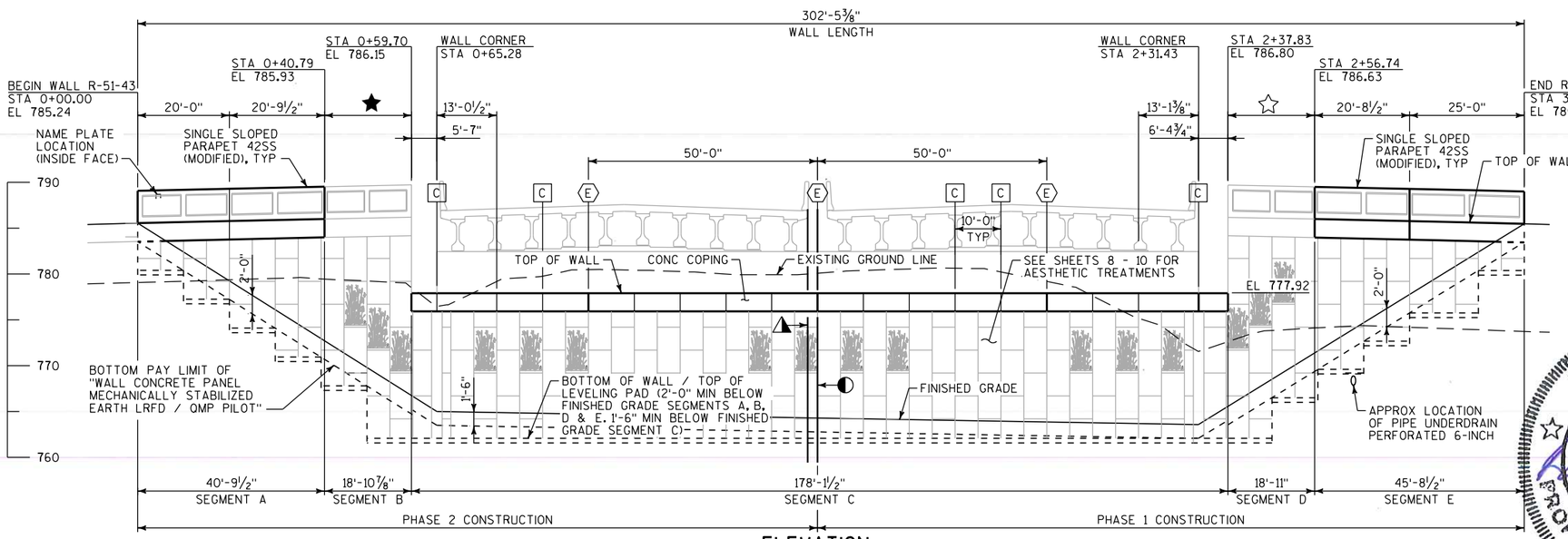
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PLAN

(MSE RETAINING WALL)



ELEVATION

(LOOKING AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG THE FRONT FACE OF WALL)

STATE PROJECT NUMBER
1033-02-72

DESIGN DATA

DESIGN SPECIFICATIONS:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION 2012

MATERIAL PROPERTIES:
- CONCRETE MASONRY _____ f'c = 4,000 P.S.I.
- PRECAST CONCRETE WALL PANEL _____ f'c = 4,000 P.S.I.
- BAR STEEL REINFORCEMENT _____ fy = 60,000 P.S.I.

LIVE LOAD:
- LIVE LOAD SURCHARGE (ROADWAY) _____ 240 P.S.F.

DESIGN THE MSE WALL IN FRONT OF THE ABUTMENT BODY TO RESIST THE FORCE FROM ALL HORIZONTAL EARTH PRESSURE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS AND A LIVE LOAD VERTICAL SURCHARGE LOAD OF 240 PSF.

DESIGN THE RETAINING WALL ADJACENT TO NORTH ABUTMENT OF BRIDGE B-51-129 & B-51-130 FOR A HORIZONTAL BACKSLOPE BEHIND THE WALL AND A LIVE LOAD VERTICAL SURCHARGE LOAD OF 240 PSF.

LEGEND

- [C] CONTRACTION JOINT IN COPING
- ⟨E⟩ EXPANSION JOINT IN ANCHOR SLAB, COPING, AND PARAPET
- TRAFFIC DIRECTION
- ★ STRUCTURAL APPROACH SLAB, SEE STRUCTURE B-51-129 FOR DETAILS
- TEMPORARY SHORING NOT A RETAINING WALL ITEM
- TEMPORARY WALL WIREFACED MECHANICALLY STABILIZED EARTH, SEE SHEET2 FOR DETAILS.
- ☆ STRUCTURAL APPROACH SLAB, SEE STRUCTURE B-51-130 FOR DETAILS

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL WALL SECTIONS
3. GENERAL NOTES, QUANTITIES & ELEVATION TABLES
4. SEGMENTS A & B PARAPET & COPING ELEVATION
5. SEGMENT C COPING ELEVATION & DETAILS
6. SEGMENTS D & E PARAPET & COPING ELEVATION
7. PARAPET, ANCHOR SLAB & COPING DETAILS
8. SEGMENTS A, B & C AESTHETIC ELEVATION
9. SEGMENTS C, D & E AESTHETIC ELEVATION
10. AESTHETIC DETAILS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

NO.	DATE	REVISION	BY

Milwaukee Transportation Partners LLC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR — CHIEF STRUCTURES DESIGN ENGINEER — 11/11/13 DATE

STRUCTURE R-51-43

NORTH RETAINING WALL AT STH 20/IH 94

COUNTY: RACINE — TOWN/~~CITY/VILLAGE~~: YORKVILLE

DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
EKM	MS	TEK	EKM

GENERAL PLAN & ELEVATION

SHEET 1 OF 10

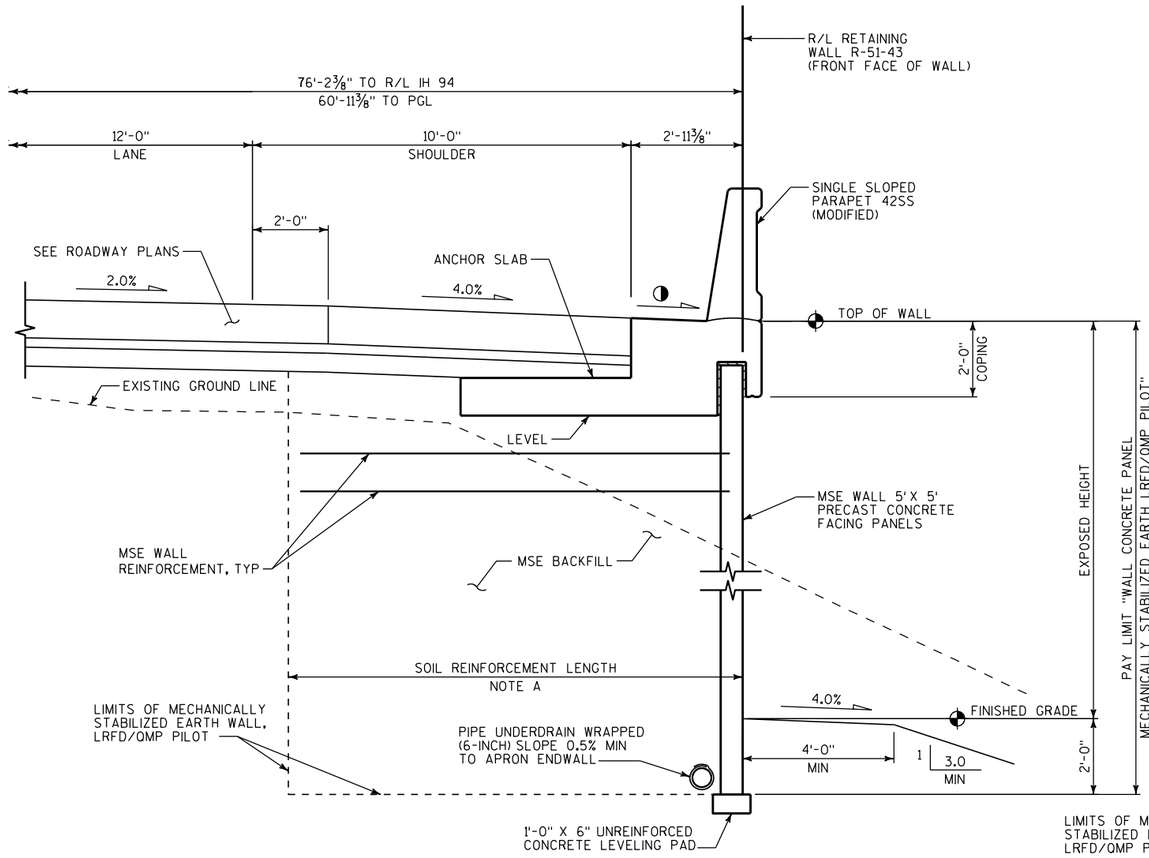
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WISCONSIN — EDWARD K. McCRIGHT — E-37422 — MILWAUKEE, WI — 11/8/13 — PROFESSIONAL ENGINEER

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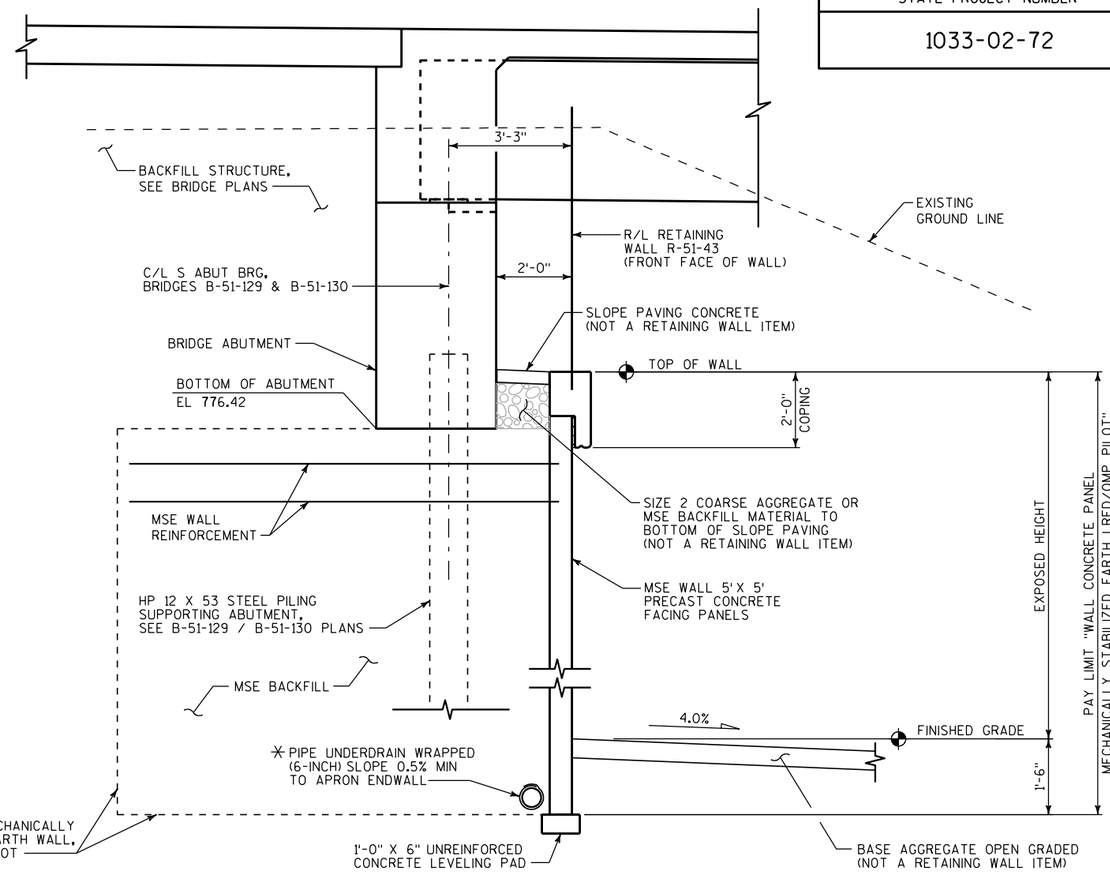
STATE PROJECT NUMBER

1033-02-72



TYPICAL SECTION

(LOOKING SOUTH - SEGMENT A)
(LOOKING NORTH - SEGMENT E)

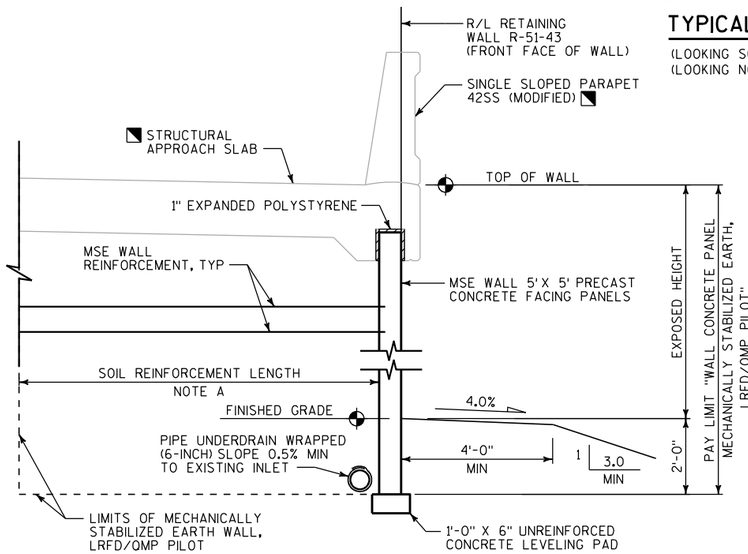


TYPICAL WALL SECTION AT ABUTMENT

(LOOKING EAST - SEGEMENT C)

NOTE A:
SEE WALL EXTERNAL STABILITY EVALUATION TABLE ON SHEET 3 FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS.

SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

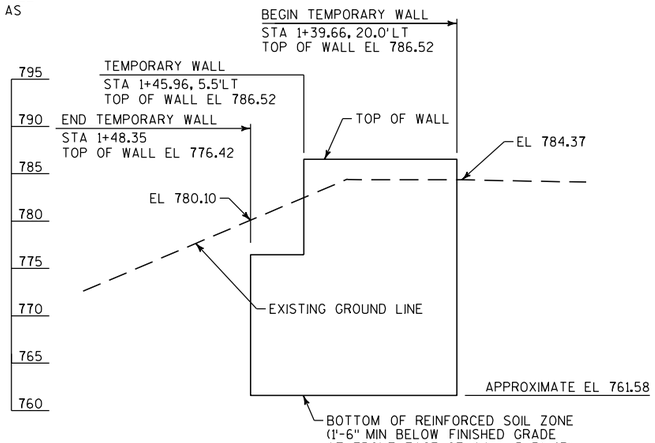


TYPICAL WALL SECTION AT APPROACH SLAB

(LOOKING SOUTH - SEGEMENT B)
(LOOKING NORTH - SEGEMENT D)

LEGEND

- ◥ NOT A RETAINING WALL ITEM
- ✳ PIPE UNDERDRAIN WRAPPED (6-INCH) TO BE CAPPED TEMPORARILY FOR PHASE 1 CONSTRUCTION AT TEMPORARY WIRE FACES MSE WALL. CAP TO BE REMOVED ALLOWING FOR CONNECTION OF PIPE UNDERDRAIN WRAPPED (6-INCH) INSTALLED DURING PHASE 2 CONSTRUCTION. TEMPORARY CAP INCIDENTAL TO BID ITEM PIPE UNDERDRAIN WRAPPED (6-INCH).
- ◑ 4.0% TYP, TRANSITION PAN SLOPE LINEARLY FROM 4.0% TO 2.0% FROM STA 0+15.79 TO STA 0+40.79 (SEGMENT A) AND FROM 2.0% TO 4.0% FROM STA 2+56.74 TO STA 2+81.74 (SEGMENT E)



ELEVATION AT TEMPORARY WALL

NOTE

SEE PARAPET, ANCHOR SLAB & COPING DETAILS SHEET FOR WALL EXCAVATION LIMITS DIAGRAM

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-43

DRAWN BY	TEK	PLANS CK'D.	EKM

TYPICAL WALL SECTIONS

SHEET 2 OF 10

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8

8

STATE PROJECT NUMBER
1033-02-72

SEGMENT A WALL ELEV. ◥

STATION	TOP OF WALL EL.	FINISHED GRADE EL.	EXISTING GROUND EL.
0+00.00	785.24	785.20	779.09
0+10.00	785.37	782.11	779.22
0+20.00	785.52	779.01	779.36
0+30.00	785.72	775.91	779.54
0+40.79	785.93	772.58	779.45

SEGMENT B WALL ELEV. ◥

STATION	TOP OF WALL EL.	FINISHED GRADE EL.	EXISTING GROUND EL.
0+40.79	785.93	772.58	779.45
0+50.00	786.04	769.73	779.26
0+59.70	786.15	766.72	778.56

◥ = LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

SEGMENT C WALL ELEV. ◥

STATION	TOP OF WALL EL.	FINISHED GRADE EL.	EXISTING GROUND EL.
0+59.70	777.92	766.72	778.56
0+65.28	777.92	765.00	776.48
0+78.32	777.92	764.89	779.19
0+88.32	777.92	764.80	779.76
0+98.32	777.92	764.72	780.49
1+08.32	777.92	764.63	780.44
1+18.32	777.92	764.54	780.30
1+28.32	777.92	764.46	780.00
1+38.32	777.92	764.37	779.94
1+48.32	777.92	764.29	780.10
1+58.32	777.92	764.20	780.39
1+68.32	777.92	764.12	780.56
1+78.32	777.92	764.03	780.65
1+88.32	777.92	763.95	780.24
1+98.32	777.92	763.86	779.21
2+08.32	777.92	763.77	777.64
2+18.32	777.92	763.69	775.21
2+31.43	777.92	763.58	771.66
2+37.83	777.92	765.59	772.64

◥ = LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

SEGMENT D WALL ELEV. ◥

STATION	TOP OF WALL EL.	FINISHED GRADE EL.	EXISTING GROUND EL.
2+37.83	786.80	765.60	772.64
2+47.45	786.71	768.63	773.87
2+56.74	786.63	771.55	774.14

SEGMENT E WALL ELEV. ◥

STATION	TOP OF WALL EL.	FINISHED GRADE EL.	EXISTING GROUND EL.
2+56.74	786.63	771.55	774.14
2+67.45	786.43	774.93	774.39
2+77.45	786.25	778.08	774.21
2+87.45	786.12	781.23	774.03
2+97.45	786.01	784.38	773.85
3+02.45	785.95	785.95	773.76

◥ = LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	SEGMENT A	SEGMENT B	SEGMENT C	SEGMENT D	SEGMENT E	TOTAL
502.3200	PROTECTIVE SURFACE TREATMENT	SY	30	---	---	---	30	60
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	25	---	---	---	28	53
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	3,760	---	---	---	4,150	7,910
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10	---	1	---	10	21
517.1010.S.0005	CONCRETE STAINING R-51-43	SF	475	290	2,690	315	565	4,335
517.1050.S.0002	ARCHITECTURAL SURFACE TREATMENT R-51-43	SF	---	75	250	75	---	400
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	---	---	---	---	10	10
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	41	19	179	19	46	304
612.0806	APRON ENDWALLS FOR PIPE UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	---	---	---	---	1	1
SPV.0165.4710	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD / QMP PILOT	SF	355	350	2,700	370	425	4,200
SPV.0165.4720	TEMPORARY WALL WIRE FACE MECHANICALLY STABILIZED EARTH LRFD / QMP PILOT	SF	---	---	485	---	---	485
	NON BID ITEMS							
	PREFORMED JOINT FILLER	SIZE						¾",2"
	NON-BITUMINOUS JOINT SEALER	SIZE						¾",1",2"
	CORK FILLER	SIZE						1"
	NAME PLATE	EACH						1
	EXPANDED POLYSTYRENE	SIZE						1"

NOTE: ALL ITEMS ARE CATEGORY 3060

WALL EXTERNAL STABILITY EVALUATION

	DIMENSIONS		
WALL HEIGHT (FEET)	21.7	13.4	16.7
EXPOSED WALL HEIGHT (FEET)	19.7	11.4	15.2
MINIMUM LENGTH OF REINFORCEMENT (FEET) ⚹	15.2	9.9	11.7
WALL STATION (R/L R-51-42)	2+31	0+37	1+48
BORING USED	02-BR	01-BR	01-BR. 02-BR
	CAPACITY TO DEMAND RATIO (CDR)		
SLIDING	1.44	1.26	1.12
ECCENTRICITY	1.14	1.02	4.42
BEARING	1.20	1.25	1.41
GLOBAL STABILITY	1.37	1.08	1.15

⚹ FINAL DESIGN FOR INTERNAL STABILITY, EXTERNAL SLIDING AND ECCENTRICITY AT OTHER WALL STATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR'S WALL DESIGNER.

SOIL PARAMETERS

SOIL DESCRIPTION	UNIT WEIGHT (PCF)	UNDRAINED		DRAINED	
		FRICTION ANGLE (DEGREES)	COHESION (PSF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
RETAINED MSE WALL FILL ⚹	130	0	2000	30-32	0-10
LEAN CLAY FILL	130	0	2000	30-32	50-100
NATIVE LEAN CLAY (HARD)	135	0	4000-4500	34	200
NATIVE LEAN CLAY (VERY STIFF)	135-140	0	2000-3000	32	100

⚹ DESIGN WALL FOR THESE VALUES

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE ¾", UNLESS NOTED OTHERWISE.

ALL STATIONS AND ELEVATIONS ARE IN FEET, ELEVATIONS ARE REFERENCED TO THE NAVD 88 DATUM.

ALL STATIONS ARE ALONG THE R/L FOR R-51-43 ALONG THE FRONT FACE OF WALL, UNLESS NOTED OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS NOTED OTHERWISE.

EXISTING STRUCTURE REMOVALS SHOWN IN THESE PLANS ARE INCLUDED IN A LUMP SUM PAY ITEM AS PART OF THE B-51-129 & B-51-130 BRIDGE QUANTITIES.

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF WALL R-51-43 WITH ABUTMENTS OF BRIDGES B-51-129 / B-51-130. R-51-43 IS TO BE CONSTRUCTED IN PHASES CONCURRENT WITH THE ROADWAY PLANS.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT".

THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT".

ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE TO BE EPOXY COATED.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR THE CAST-IN-PLACE ANCHOR SLAB/COPING AND THE PARAPETS ARE PAID FOR UNDER THE ITEMS "CONCRETE MASONRY RETAINING WALLS" AND "BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS", RESPECTIVELY.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF THE WALL AS SHOWN IN THE PLANS. THE TOP OF THE LEVELING PAD IS ASSUMED TO BE AT LEAST 2'-0" BELOW THE FINISHED GRADE FOR SEGMENTS A,B,D & E AND 1'-6" BELOW FINISHED GRADE FOR SEGMENT C.

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE STANDARD PANEL SIZE SHALL BE 5'HIGH X 5'WIDE. 5'HIGH X 10'WIDE STANDARD PANELS WILL NOT BE ALLOWED.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

GENERAL NOTES CONTINUED

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

DESIGN THE RETAINING WALL FOR HORIZONTAL FINISHED GRADE BEHIND THE WALL AND A LIVE LOAD SURCHARGE OF 240 PSF.

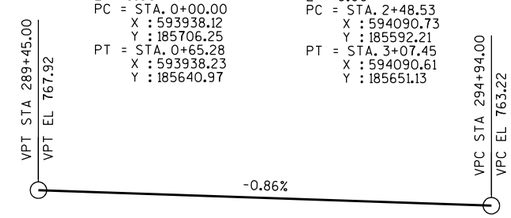
SEE B-51-129 AND B-51-130 SUBSURFACE EXPLORATION SHEETS FOR SOIL BORING INFORMATION.

THE QUANTITIES OF CONCRETE AND BAR STEEL REINFORCEMENT FOR THE SEGMENT C CAST-IN-PLACE COPING ARE INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH, LRFD/QMP PILOT."

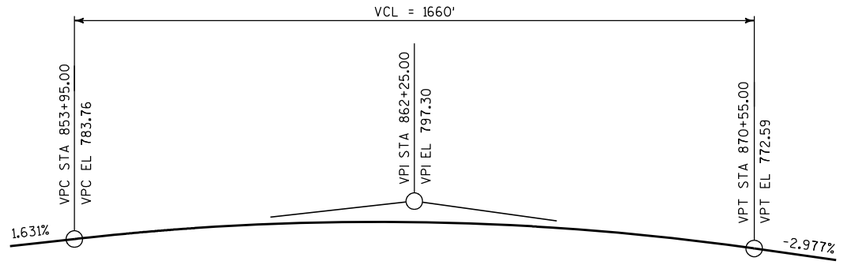
HORIZONTAL CURVE DATA

WALL CURVE 1
PI = STA. 0+32.64
X : 593938.17
Y : 185673.61
DELTA = 0°01'37.87" LT
D = 0°02'29.92"
R = 137580.07'
T = 32.64
L = 65.28
E = 0.00
PC = STA. 0+00.00
X : 593938.12
Y : 185706.25
PT = STA. 0+65.28
X : 593938.23
Y : 185640.97

WALL CURVE 2
PI = STA. 2+77.99
X : 594090.66
Y : 185621.67
DELTA = 0°01'28.43" RT
D = 0°02'30.09"
R = 137427.67'
T = 29.46
L = 58.92
E = 0.00
PC = STA. 2+48.53
X : 594090.73
Y : 185592.21
PT = STA. 3+07.45
X : 594090.61
Y : 185651.13



PROFILE GRADE LINE - STH 20



PROFILE GRADE LINE - IH 94

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-43

DRAWN BY TEK | PLANS CK'D. EKM

GENERAL NOTES, QUANTITIES & ELEVATION TABLES

SHEET 3 OF 10

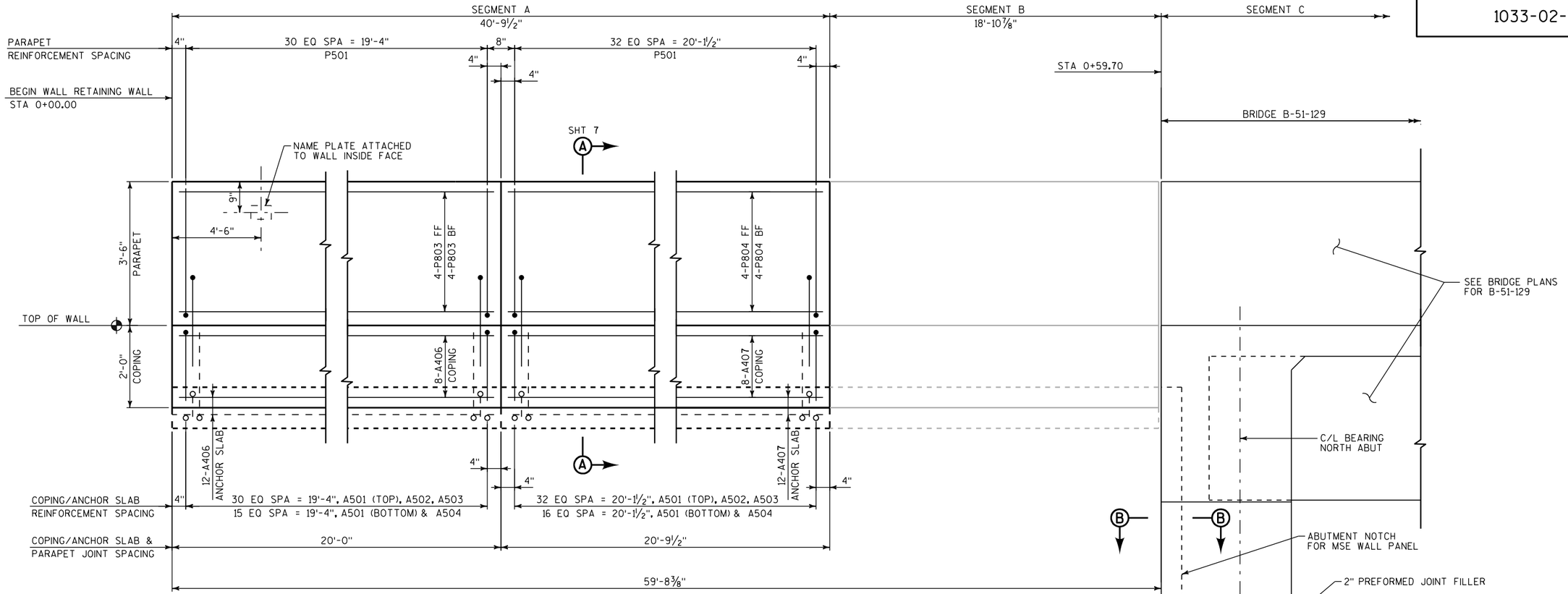
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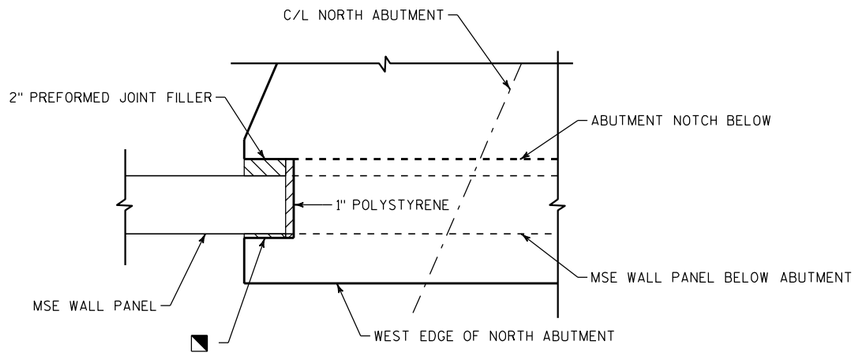
STATE PROJECT NUMBER

1033-02-72



ELEVATION OF COPING & PARAPET

LOOKING EAST AT FRONT FACE OF WALL
SEGMENTS A & B



SECTION B-B

NORTH ABUTMENT OF B-51-129 SHOWN

LEGEND

◥ = ½" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR OF JOINT SEALER TO BE MATCH CONCRETE STAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-43

DRAWN BY: TEK | PLANS CK'D.: EKM

SEGMENTS A & B PARAPET & COPING ELEVATION

SHEET 4 OF 10

588

8

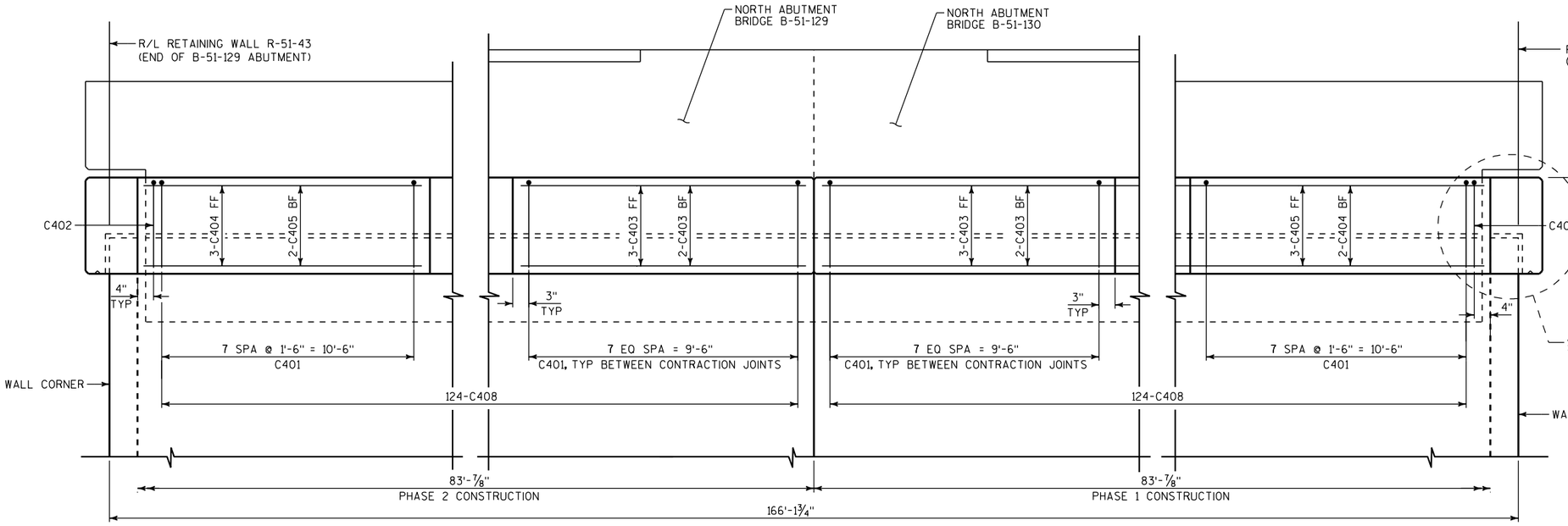
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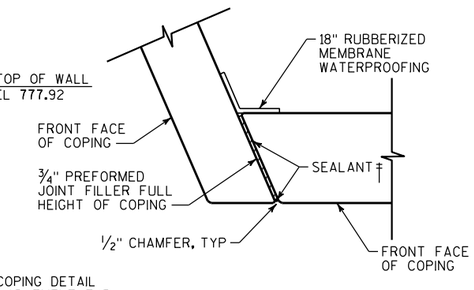
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STATE PROJECT NUMBER
1033-02-72

COPING ELEVATION AT ABUTMENT

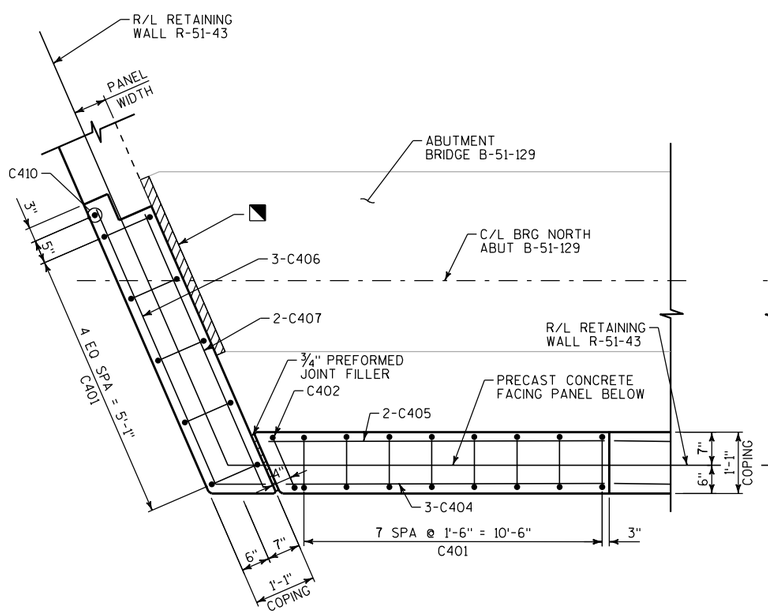
LOOKING NORTH AT FRONT FACE OF WALL - SEGMENT C



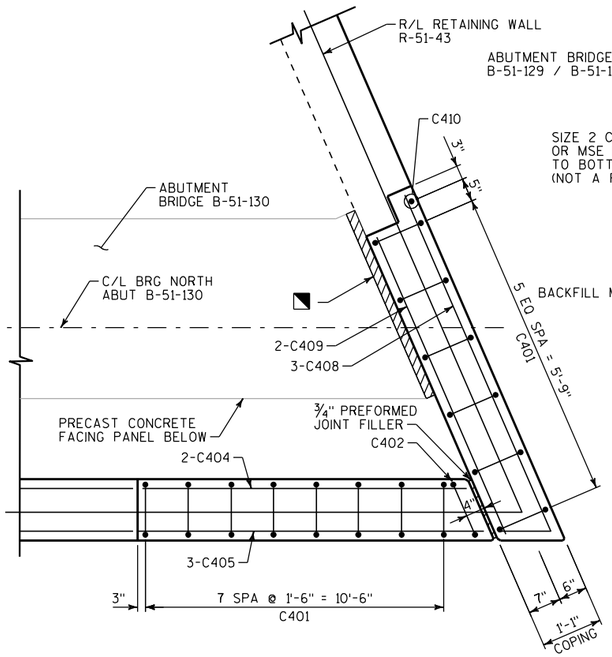


COPING EXPANSION JOINT

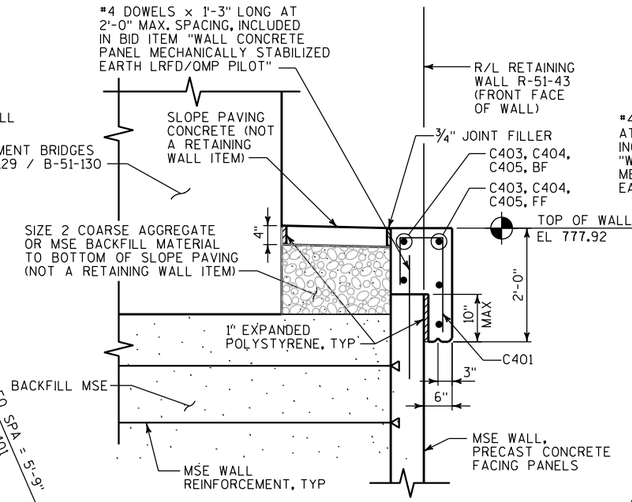
† NON-BITUMINOUS JOINT SEALER, COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE)



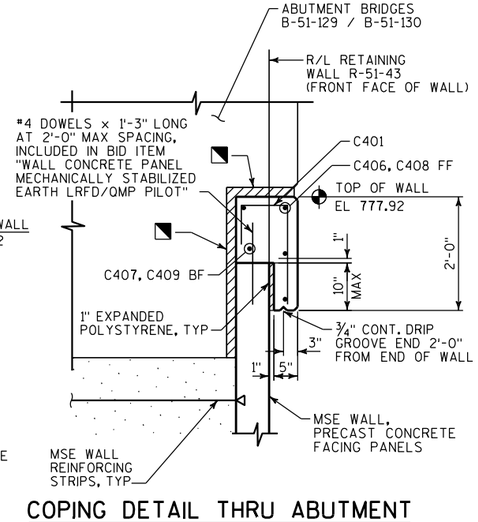
WEST CORNER DETAIL



EAST CORNER DETAIL



COPING DETAIL AT ABUTMENT



COPING DETAIL THRU ABUTMENT

= 2" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-43

DRAWN BY AMH | PLANS CK'D. EKM

SEGMENT C
COPING ELEVATION & DETAILS

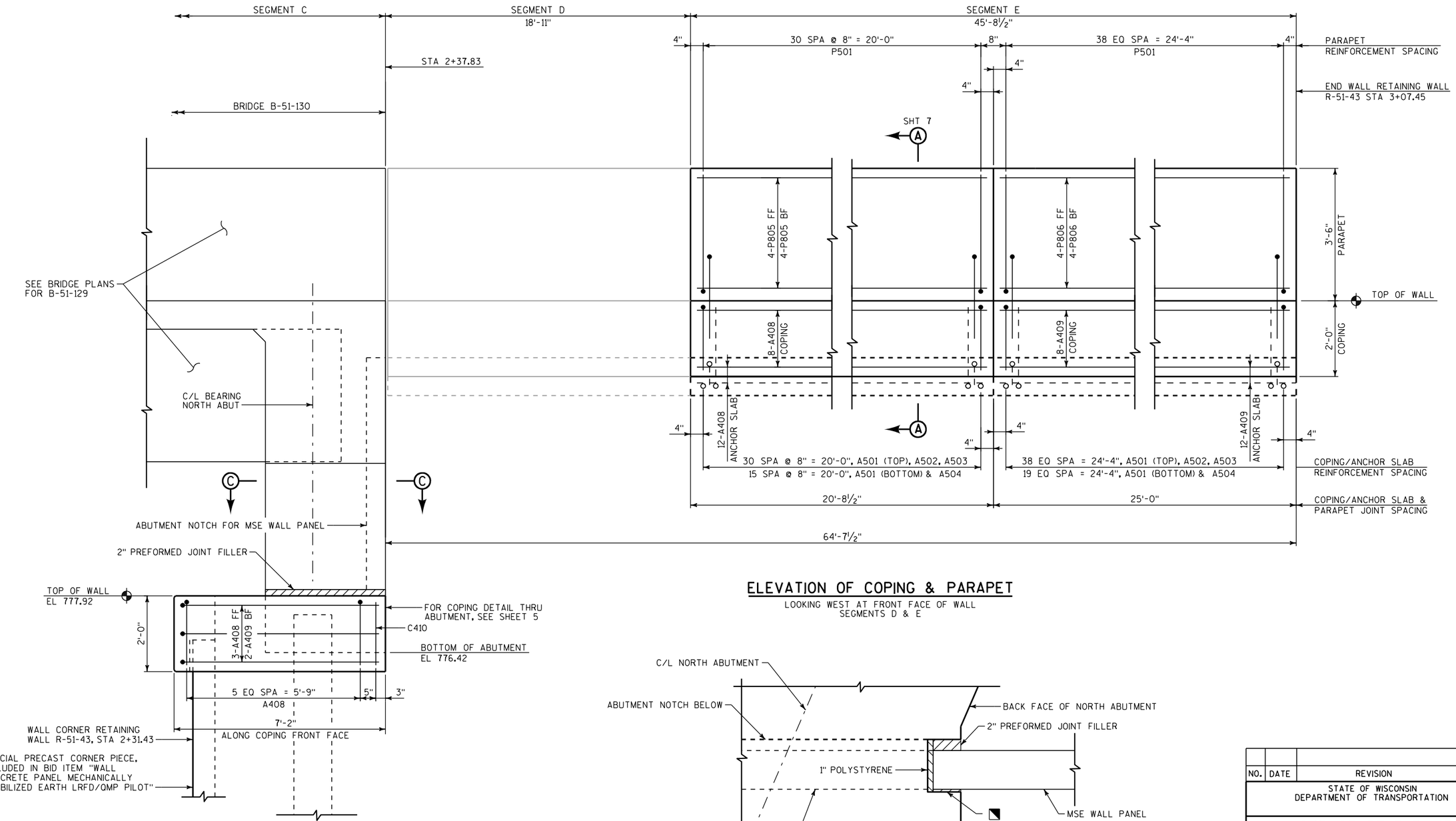
SHEET 5 OF 10

589

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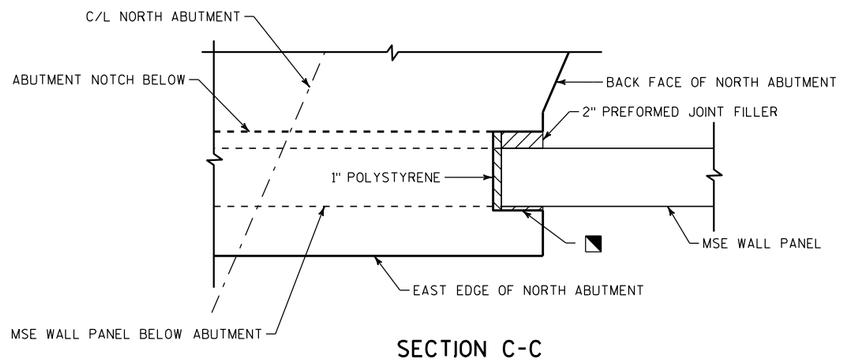
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STATE PROJECT NUMBER
1033-02-72



ELEVATION OF COPING & PARAPET

LOOKING WEST AT FRONT FACE OF WALL
SEGMENTS D & E



SECTION C-C

NORTH ABUTMENT OF B-51-130 SHOWN

LEGEND

◥ = ½" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR OF JOINT SEALER TO BE MATCH CONCRETE STAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-43

DRAWN BY: AMH | PLANS CK'D.: EKM

SEGMENTS D & E PARAPET & COPING ELEVATION

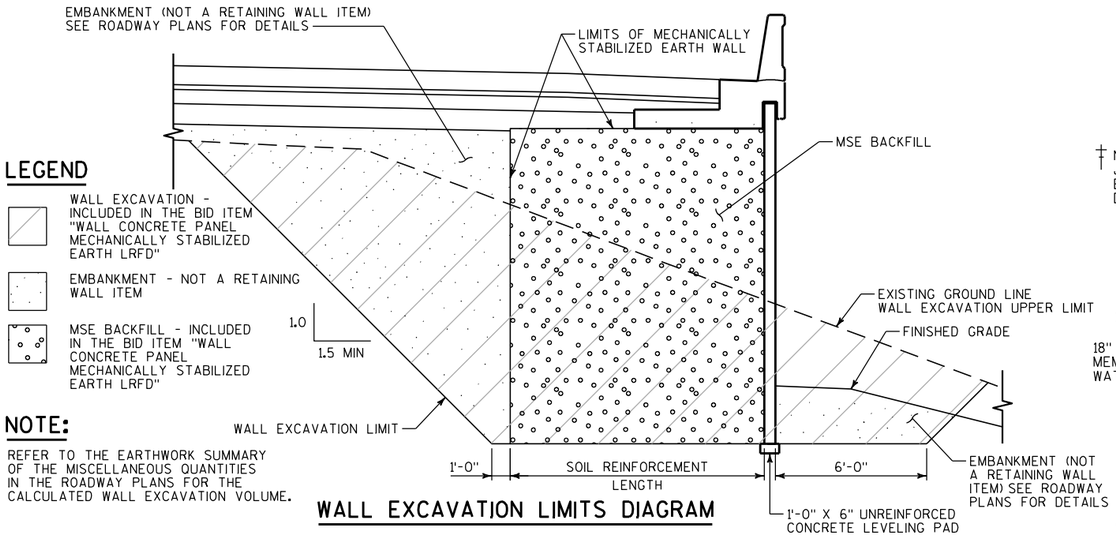
SHEET 6 OF 10

590

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STATE PROJECT NUMBER
1033-02-72



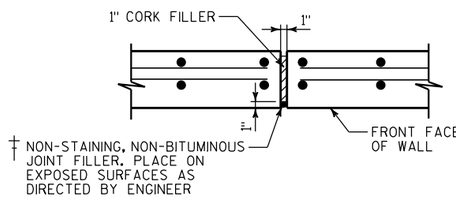
LEGEND

- WALL EXCAVATION - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD"
- EMBANKMENT - NOT A RETAINING WALL ITEM
- MSE BACKFILL - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD"

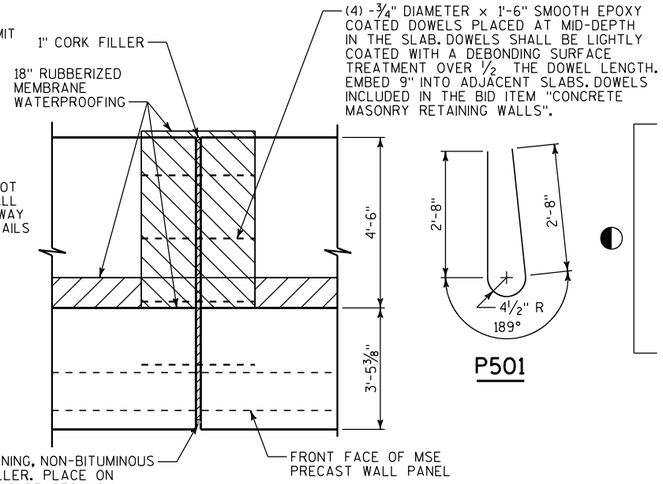
NOTE:

REFER TO THE EARTHWORK SUMMARY OF THE MISCELLANEOUS QUANTITIES IN THE ROADWAY PLANS FOR THE CALCULATED WALL EXCAVATION VOLUME.

WALL EXCAVATION LIMITS DIAGRAM

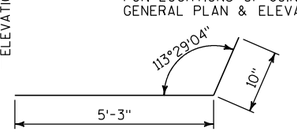


PARAPET EXPANSION JOINT



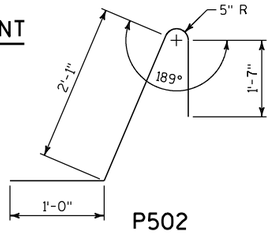
ANCHOR SLAB EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT, EXCEPT FOR DOWEL BARS AS SHOWN. FOR LOCATIONS OF JOINTS SEE GENERAL PLAN & ELEVATION



C406

P501



P502

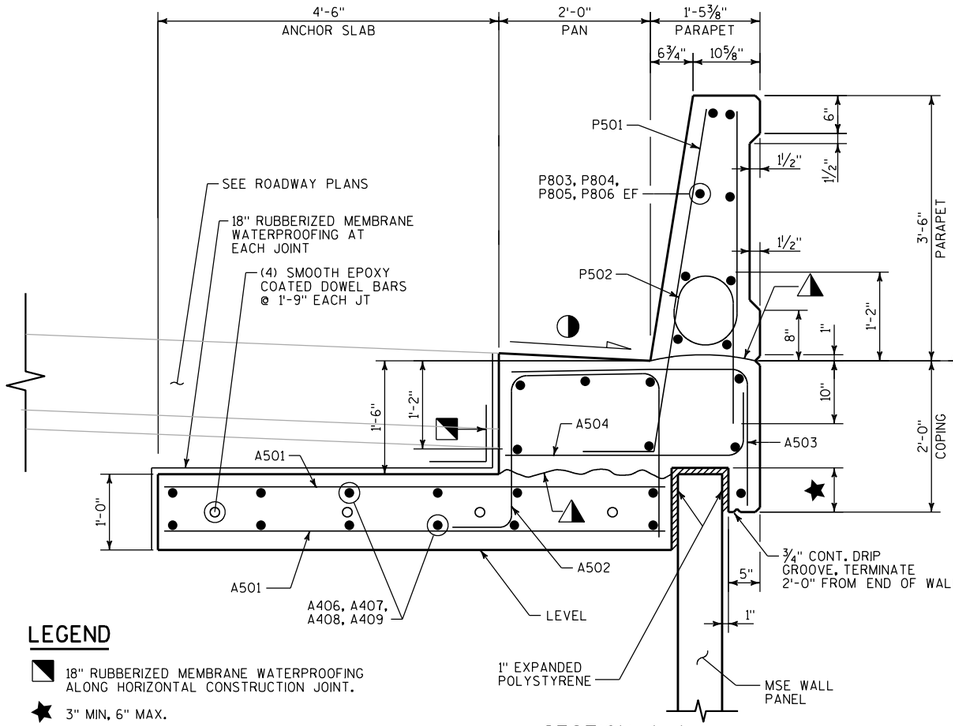
ANCHOR SLAB & COPING BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
A501	X	203	6'-5"		ANCHOR SLAB - HORIZONTAL TOP & BOTTOM
A502	X	134	6'-7"	X	ANCHOR SLAB - VERTICAL TIE
A503	X	134	4'-8"	X	ANCHOR SLAB - HORIZONTAL TIE
A504	X	69	3'-10"	X	ANCHOR SLAB - HORIZONTAL TIE
A505	X	---	---		NOT USED
A406	X	20	19'-7"		ANCHOR SLAB - LONGITUDINAL
A407	X	20	20'-4"		ANCHOR SLAB - LONGITUDINAL
A408	X	20	20'-3"		ANCHOR SLAB - LONGITUDINAL
A409	X	20	24'-7"		ANCHOR SLAB - LONGITUDINAL
C401	X	144	2'-4"	X	COPING - VERTICAL TIE
C402	X	2	2'-5"	X	COPING - VERTICAL TIE
C403	X	80	9'-8"		COPING - LONGITUDINAL
C404	X	5	11'-10"		COPING - LONGITUDINAL
C405	X	5	12'-3"		COPING - LONGITUDINAL
C406	X	6	6'-5"	X	COPING - LONGITUDINAL
C407	X	2	5'-5"		COPING - LONGITUDINAL
C408	X	3	7'-6"	X	COPING - LONGITUDINAL
C409	X	2	5'-11"		COPING - LONGITUDINAL
C410	X	2	1'-8"		COPING - VERTICAL

PARAPET BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
P501	X	134	6'-8"	X	PARAPET - VERTICAL TIE
P502	X	134	5'-11"	X	PARAPET - VERTICAL TIE
P803	X	8	19'-7"		PARAPET - LONGITUDINAL
P804	X	8	20'-4"		PARAPET - LONGITUDINAL
P805	X	8	20'-3"		PARAPET - LONGITUDINAL
P806	X	8	24'-7"		PARAPET - LONGITUDINAL

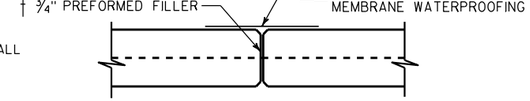
NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.



SECTION A-A

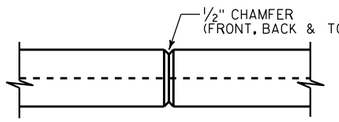
LEGEND

- 18" RUBBERIZED MEMBRANE WATERPROOFING ALONG HORIZONTAL CONSTRUCTION JOINT.
- 3" MIN, 6" MAX.
- ‡ SEAL ALL EXPOSED HORIZ & VERT SURFACES OF FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER, COLOR TO MATCH CONCRETE STAIN (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC).
- MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.
- FOR INFORMATION ONLY. THESE BARS ARE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH, LRFD/OMP PILOT".
- CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH
- 4.0% TYP. TRANSITION PAN SLOPE LINEARLY FROM 4.0% TO 2.0% FROM STA 0+15.79 TO STA 0+40.79 (SEGMENT A) AND FROM 2.0% TO 4.0% FROM STA 2+56.74 TO STA 2+81.74 (SEGMENT E)



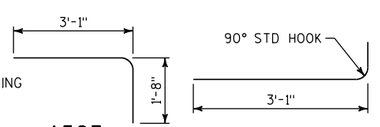
COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT.

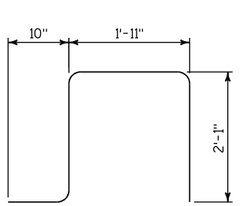


COPING CONTRACTION JOINT

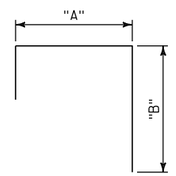
DO NOT RUN BAR STEEL THRU JOINT.



A503 A504

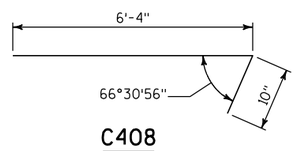


A502



C401, C402

BAR MARK	DIM. "A"	DIM. "B"
C401	9"	1'-8"
C402	10"	1'-8"



C408

NOTE

SEE GENERAL PLAN & ELEVATION SHEET FOR LOCATION OF EXPANSION JOINTS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-43

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PARAPET, ANCHOR SLAB & COPING DETAILS

SHEET 7 OF 10

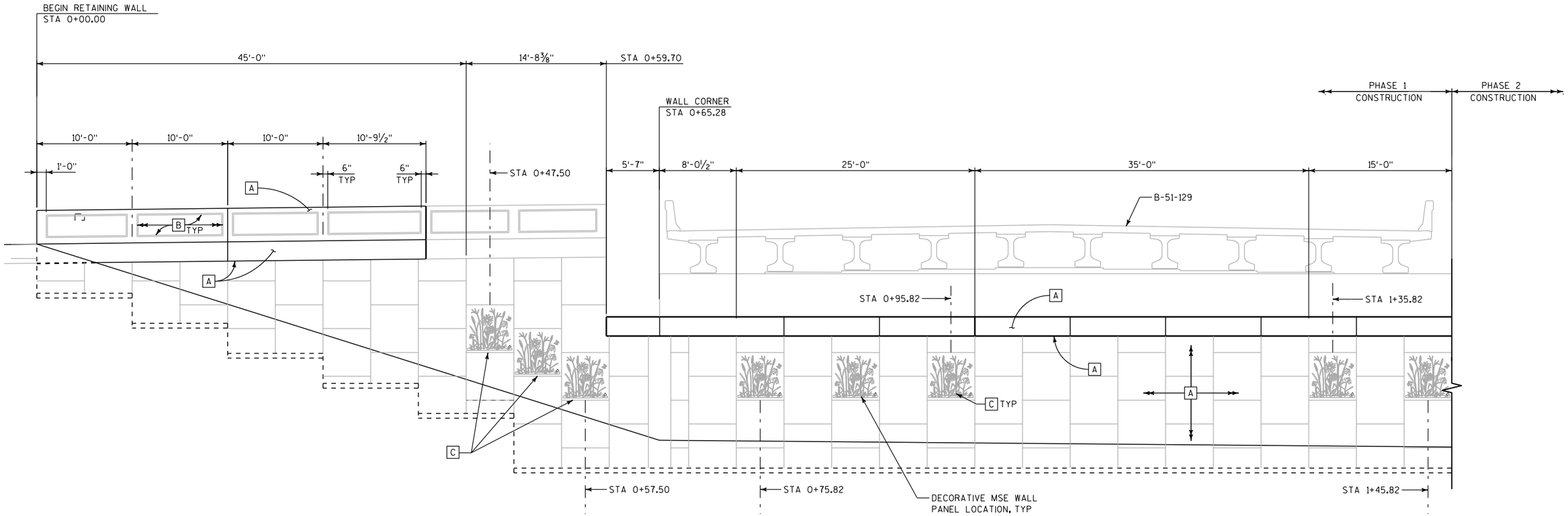
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STATE PROJECT NUMBER
1033-02-72



PARTIAL ELEVATION

CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION	NOTES
A	BASE COLOR	VERTICAL FACE PARAPET	BOTH SIDES, EXCEPT AS NOTED FOR ACCENT COLORS
		WALLS	EXPOSED FACES TO 1'-0" BELOW FINAL GRADE
B	ACCENT COLOR #1	VERTICAL FACE PARAPET	RECESSED PANELS ON EXTERIOR SIDES
C	ACCENT COLOR #2	DECORATIVE PANEL	RECESSED AREAS

STAIN COLORS

THE FINAL COLOR OF THE CONCRETE FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:

BASE COLOR : 33564
ACCENT COLOR #1: 33448
ACCENT COLOR #2: 20170

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-43

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SEGMENTS A, B & C AESTHETIC ELEVATION

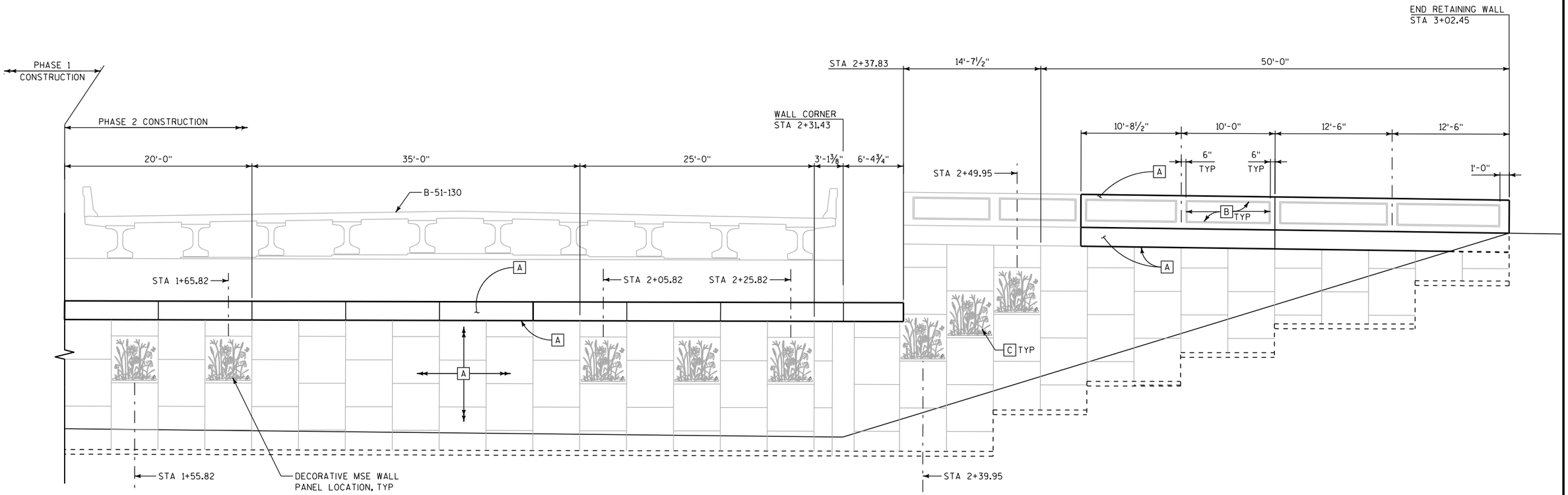
SHEET 8 OF 10

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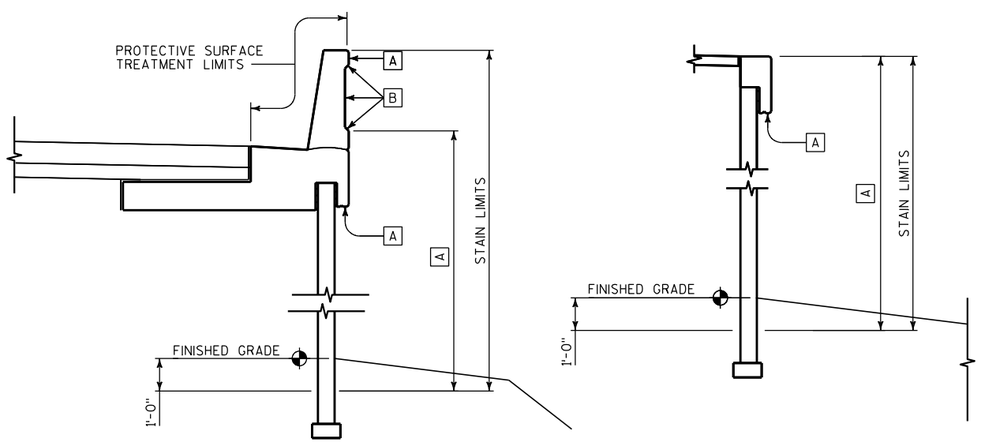
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STATE PROJECT NUMBER
1033-02-72



PARTIAL ELEVATION



MSE WALL STAINING DIAGRAM

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-43

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SEGMENTS D & E
AESTHETIC
ELEVATION

SHEET 9 OF 10

593

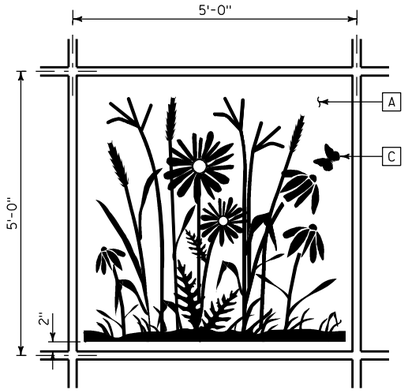
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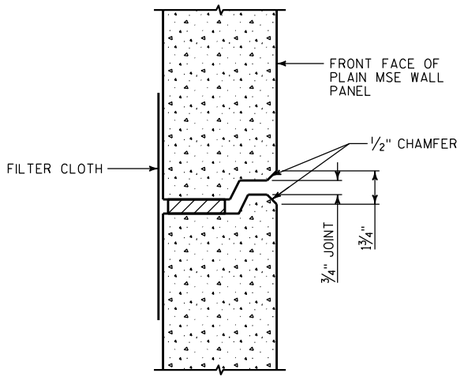
STATE PROJECT NUMBER

1033-02-72



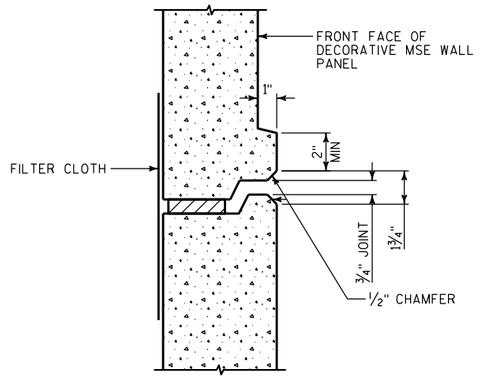
DECORATIVE MSE PANEL

"PRAIRIE PATTERN"



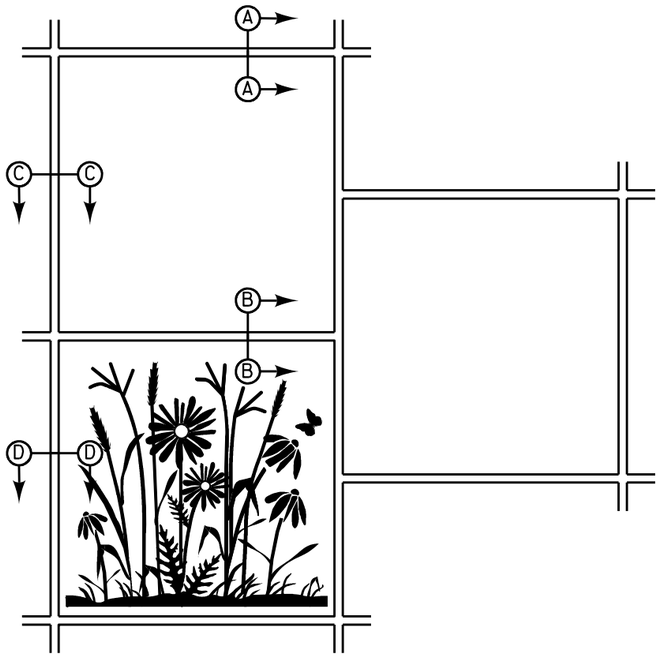
SECTION A-A

HORIZONTAL JOINT @ MSE WALL PANELS

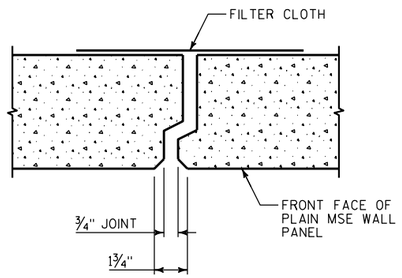


SECTION B-B

HORIZONTAL JOINT @ MSE WALL PANELS

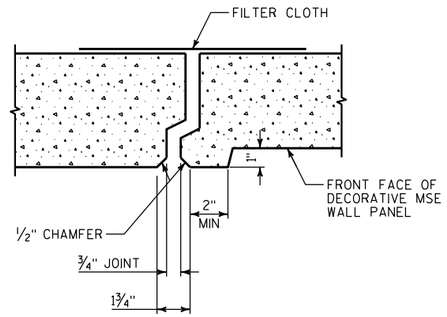


PARTIAL ELEVATION



SECTION C-C

VERTICAL JOINT @ MSE WALL PANELS



SECTION D-D

VERTICAL JOINT @ MSE WALL PANELS

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-43

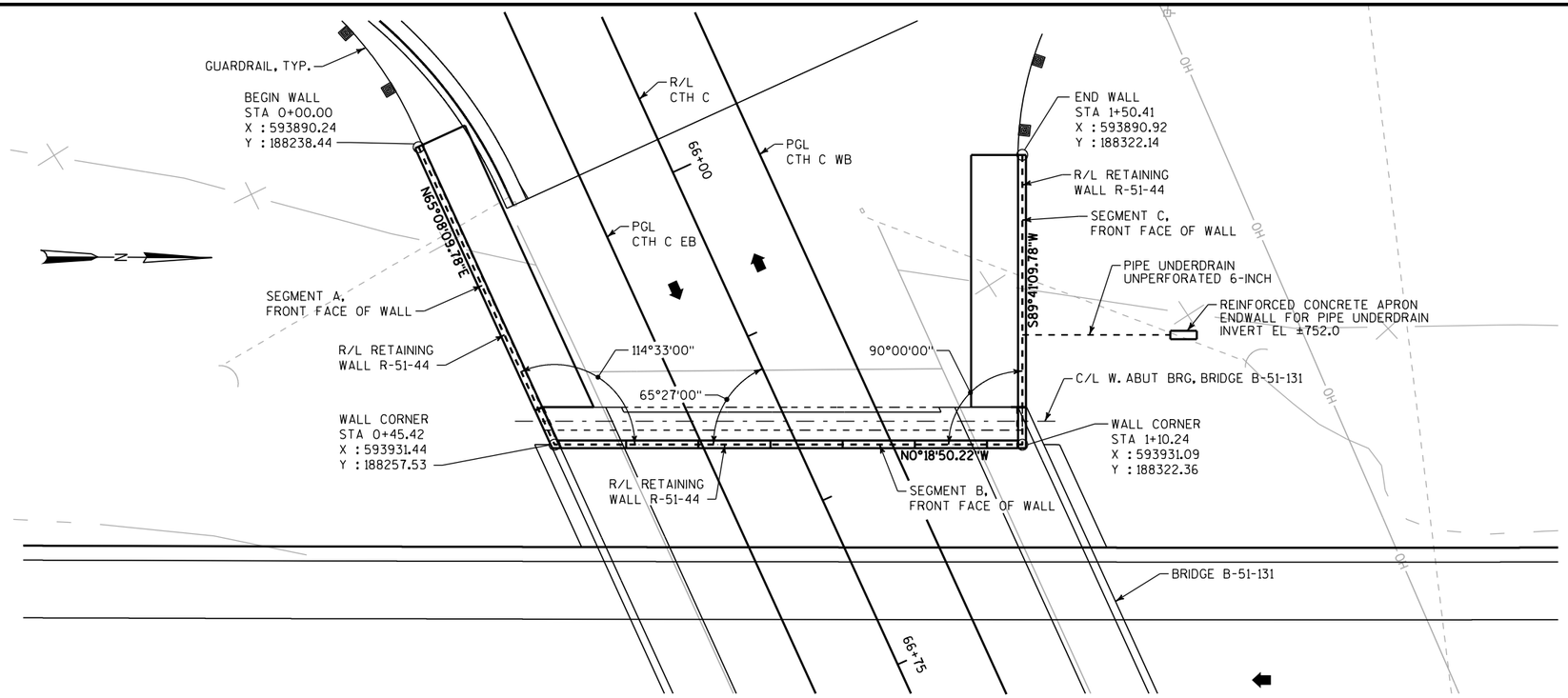
DRAWN BY TEK | PLANS CK'D. EKM

AESTHETIC DETAILS

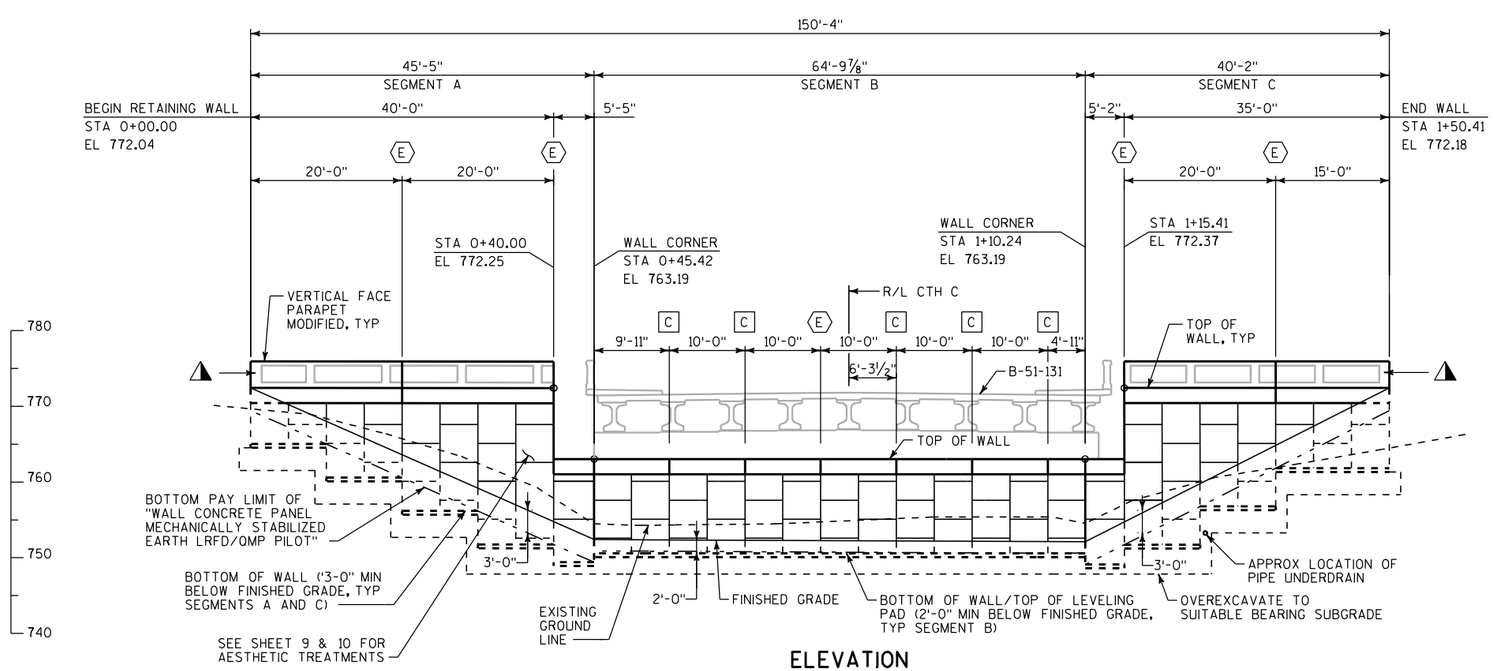
SHEET 10 OF 10

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PLAN



ELEVATION

(LOOKING AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG THE FRONT FACE OF WALL)
(DECORATIVE FENCE NOT SHOWN)

STATE PROJECT NUMBER
1033-02-72

DESIGN DATA

DESIGN SPECIFICATION:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012

MATERIAL PROPERTIES:
CONCRETE MASONRY RETAINING WALL _____ f'c = 4,000 PSI
PRECAST CONCRETE WALL PANELS _____ f'c = 4,000 PSI
BAR STEEL REINFORCEMENT _____ fy = 60,000 PSI
STRUCTURAL STEEL CARBON _____ fy = 36,000 PSI

LIVE LOAD:
LIVE LOAD SURCHARGE _____ 240 PSF

DESIGN THE MSE WALL IN FRONT OF THE ABUTMENT BODY TO RESIST THE FORCE FROM ALL EARTH PRESSURE ACTING ON THE ABUTMENT BELOW THE BEAMS SEATS AND A LIVE LOAD VERTICAL SURCHARGE OF 240 PSF.

DESIGN THE RETAINING WALL ADJACENT TO THE WEST ABUTMENT OF BRIDGE B-51-131 FOR A HORIZONTAL BACKSLOPE BEHIND THE WALL AND A LIVE LOAD VERTICAL SURCHARGE OF 240 PSF.

NOTES

SEE BRIDGE B-51-131 PLANS FOR SOIL BORING LOGS.

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. QUANTITIES, NOTES & PROFILE GRADE LINES
3. TYPICAL WALL SECTIONS & ELEVATION TABLES
4. SEGMENT A PARAPET & COPING ELEVATION
5. SEGMENT B COPING ELEVATION & DETAILS
6. SEGMENT C PARAPET & COPING ELEVATION
7. PARAPET, ANCHOR SLAB & COPING DETAILS
8. VERTICAL FACE PARAPET MODIFIED
9. AESTHETIC WALL ELEVATION
10. AESTHETIC WALL TREATMENT DETAILS
11. FENCE DECORATIVE WALL (1 OF 4)
12. FENCE DECORATIVE WALL (2 OF 4)
13. FENCE DECORATIVE WALL (3 OF 4)
14. FENCE DECORATIVE WALL (4 OF 4)

LEGEND

- C — CONTRACTION JOINT IN COPING
- E — EXPANSION JOINT IN ANCHOR SLAB AND PARAPET, OR COPING
- TRAFFIC DIRECTION
- PROVIDE ANCHOR ASSEMBLY FOR THRIE BEAM GUARDRAIL ATTACHMENT

STRUCTURES DESIGN CONTACTS
BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

NO.	DATE	REVISION	BY

Milwaukee Transportation Partners LLC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 11/11/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN KARL E. SCHMID E-30812 MILWAUKEE, WI PROFESSIONAL ENGINEER
11/08/2013

STRUCTURE R-51-44

WEST RETAINING WALL AT CTH C OVER IH 94

COUNTY	TOWN/~~CITY/VILLAGE~~
RACINE	YORKVILLE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
EKM	MS	TEK	KES

GENERAL PLAN & ELEVATION

SHEET 1 OF 14

595

8

8

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	SEGMENT A	SEGMENT B	SEGMENT C	TOTAL
206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS R-51-44	LS	———	———	———	1
209.0100	BACKFILL GRANULAR	CY	65	140	55	260
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	18	———	16	34
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	3,280	———	2,890	6,170
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	3	1	3	7
517.1010.S.0006	CONCRETE STAINING R-51-44	SF	760	795	670	2,225
517.1050.S.0003	ARCHITECTURAL SURFACE TREATMENT R-51-44	SF	75	100	75	250
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	———	———	20	20
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	46	65	41	152
612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	———	———	1	1
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1	———	1	2
SPV.0090.4410	FENCE DECORATIVE WALL	LF	45	———	40	85
SPV.0165.4710	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT	SF	540	800	480	1,820
	NON-BID ITEMS					
	EXPANDED POLYSTYRENE	SIZE				1"
	PREFORMED JOINT FILLER	SIZE				1/2", 1" & 2"
	NON-BITUMINOUS JOINT FILLER	SIZE				1/2", 1" & 2"
	CORK FILLER	SIZE				1"
	NAME PLATE	EACH				1

ALL ITEMS ARE CATEGORY 0230

⚠ QUANTITY BASED ON A 3'-0" OVER EXCAVATION DEPTH

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS		
WALL HEIGHT (FEET)	12.8	20.5
EXPOSED WALL HEIGHT (FEET)	10.8	17.5
MINIMUM LENGTH OF REINFORCEMENT (FEET) ◐	12.0	15.5
WALL STATION	1+06	1+15
BORING USED	BR-1	BR-1
CAPACITY TO DEMAND RATIO (CDR)		
SLIDING	1.14	1.42
ECCENTRICITY	8.20	1.28
BEARING	1.81	1.00
GLOBAL STABILITY	1.02	1.06

◐ FINAL DESIGN FOR INTERNAL STABILITY, EXTERNAL SLIDING, AND ECCENTRICITY AT OTHER WALL STATIONS IS THE RESONSIBILITY OF THE CONTRACTOR'S WALL DESIGNER.

SOIL PARAMETERS

SOIL DESCRIPTION	UNIT WEIGHT (PCF)	UNDRAINED		DRAINED	
		FRICTION ANGLE (DEGREES)	COHESION (PSF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
BACKFILL ✳	120	30	0	30	0
CLAY FILL	125	0	2,000	30	20
SAND / SILTY SAND FILL	120	30	0	30	0
HARD LEAN CLAY	135	0	4,000	34	200
VERY STIFF LEAN CLAY	135	0	3,000	33	150

✳ DESIGN WALL FOR THESE VALUES

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE 3/4", UNLESS NOTED OTHERWISE.

ALL STATIONS AND ELEVATIONS ARE IN FEET, ELEVATIONS ARE REFERENCED TO THE (NGVD) NORTH AMERICAN VERTICAL DATUM OF 1988.

ALL DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

THE COST OF FURNISHING AND PLACING MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT".

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7 INCHES. FOR PANEL THICKNESSES DIFFERENT THAN 7 INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF WALL R-51-44 WITH THE WEST ABUTMENT OF BRIDGE B-51-131.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT".

THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT".

ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE TO BE EPOXY COATED.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR THE SEGMENTS A & C CAST-IN-PLACE ANCHOR SLAB/COPING IS PAID FOR UNDER THE ITEM "CONCRETE MASONRY RETAINING WALLS" AND "BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS", RESPECTIVELY.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS ASSUMED TO BE 3'-0" BELOW FINISHED GRADE FOR SEGMENTS A & C AND 2'-0" BELOW FINISHED GRADE FOR SEGMENT B. WALL AREAS CONSTRUCTED OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT.

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

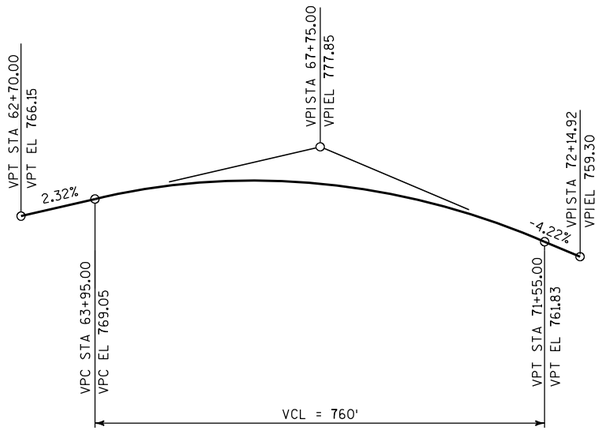
THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR THE CAST-IN-PLACE CONCRETE COPING (SEGMENTS A, B & C) ARE INCLUDED IN THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT".

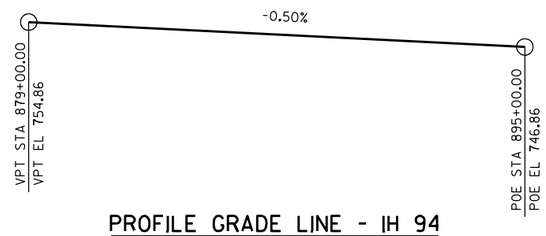
THE EXISTING 2-SPAN CONTINUOUS STEEL PLATE GIRDER STRUCTURE (B-51-72) IS NOT SHOWN IN THESE PLANS. THE REMOVAL OF THE STRUCTURE IS INCLUDED IN A LUMP SUM BID ITEM AS PART OF THE B-51-131 BRIDGE QUANTITIES.

THE STANDARD PANEL SIZE SHALL BE 5'HIGH X 5'WIDE. 5'HIGH X 10'WIDE STANDARD PANELS WILL NOT BE ALLOWED.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT IS HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.



PROFILE GRADE LINE - CTH C



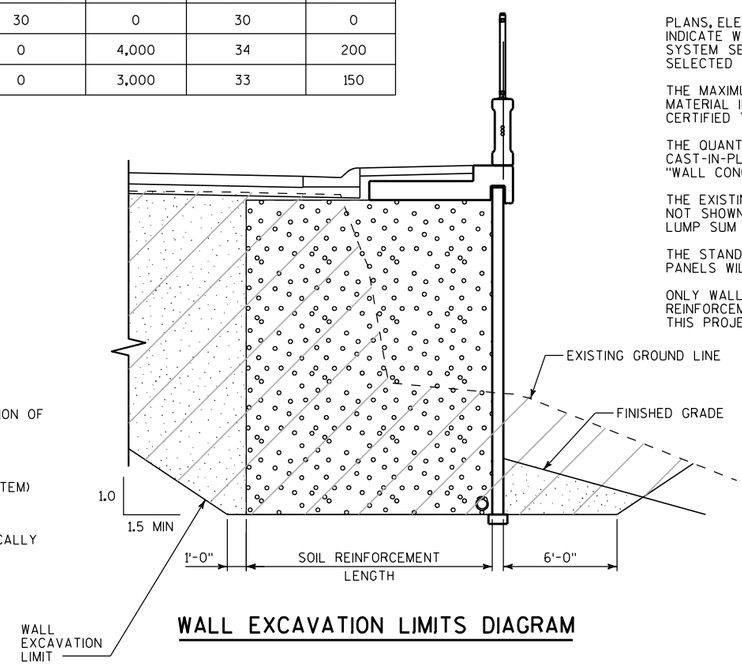
PROFILE GRADE LINE - IH 94

LEGEND

EXCAVATION REQUIRED FOR CONSTRUCTION OF MSE WALL - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRDF/QMP PILOT"

EMBANKMENT (NOT A RETAINING WALL ITEM)

MSE BACKFILL - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT"



WALL EXCAVATION LIMITS DIAGRAM

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-44

DRAWN BY TEK | PLANS CK'D. KES

QUANTITIES, NOTES & PROFILE GRADE LINES

SHEET 2 OF 14

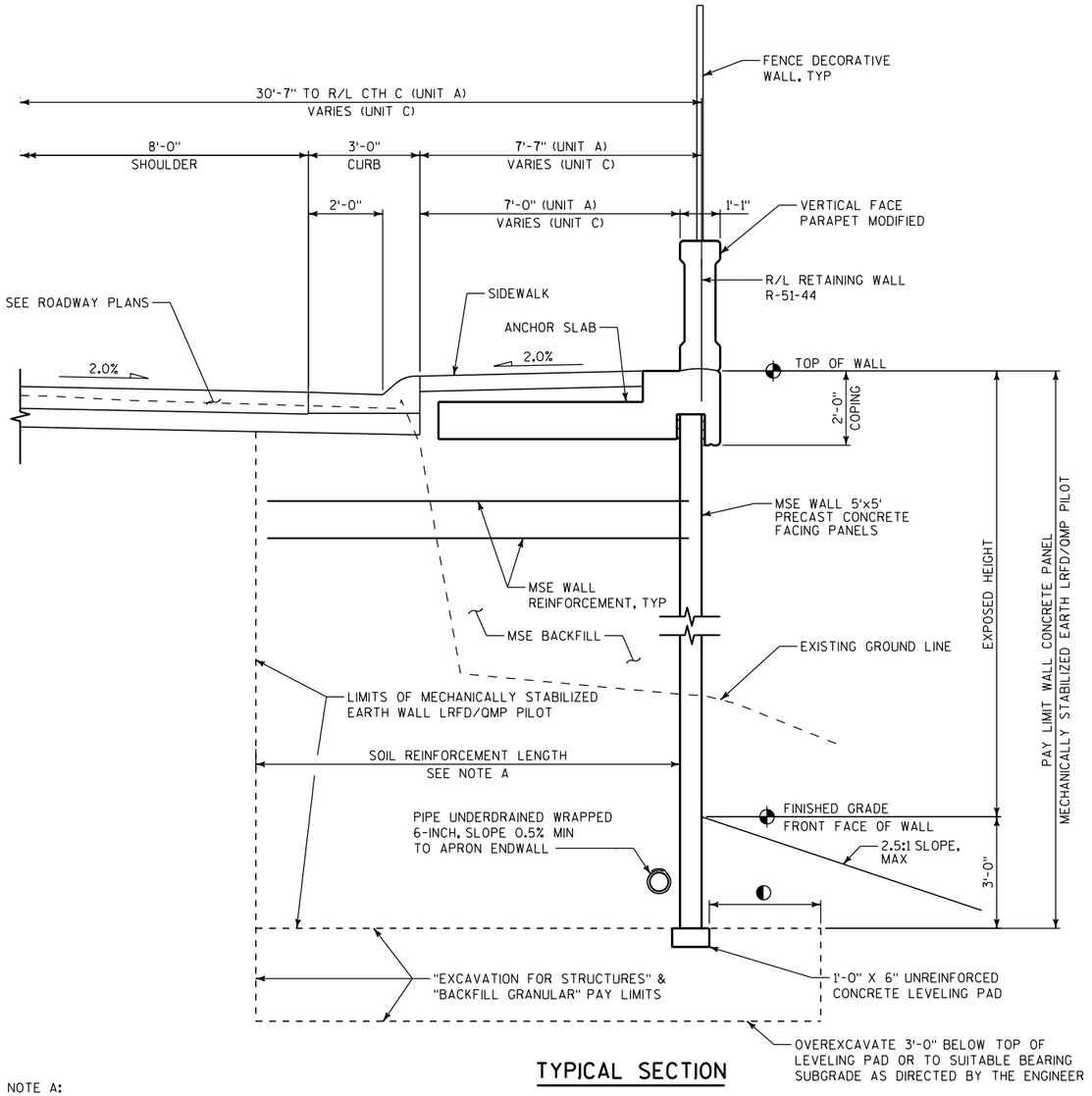
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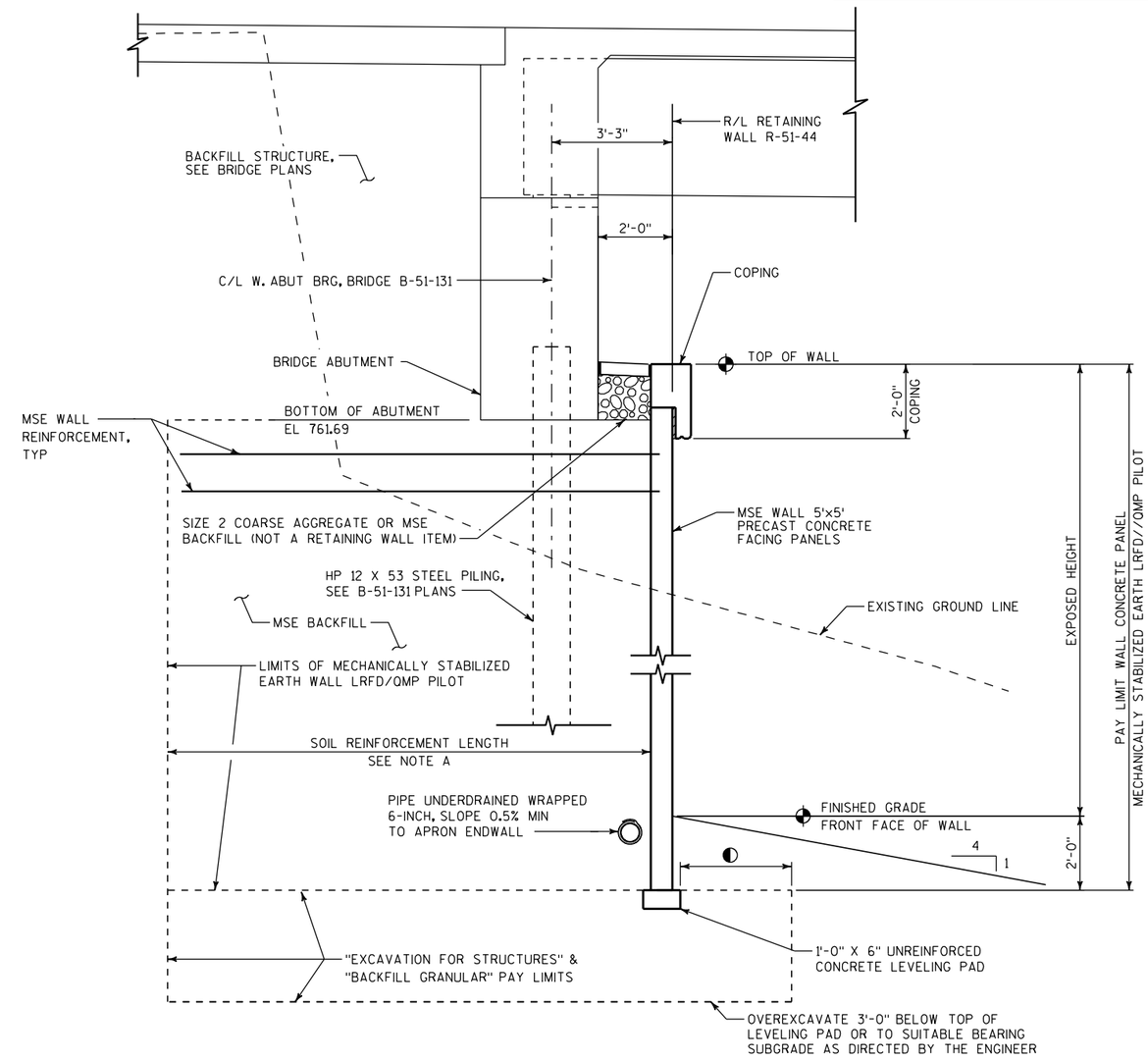
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TYPICAL SECTION

(LOOKING EAST - SEGMENT A)
(LOOKING WEST - SEGMENT C)



TYPICAL WALL SECTION AT ABUTMENT

(LOOKING NORTH - SEGMENT B)

NOTE A:

SEE WALL EXTERNAL STABILITY EVALUATION TABLE ON SHEET 2 FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

SEGMENT A WALL ELEVATIONS ◣

WALL STATION	TOP OF WALL EL.	FINISHED GRADE EL.	EXISTING GROUND EL.
0+00.00	772.04	772.04	770.05
0+10.00	772.11	767.78	768.76
0+20.00	772.16	763.52	766.09
0+30.00	772.21	759.26	762.85
0+40.00	772.25	755.00	758.69
0+45.42	763.19	752.72	756.33

SEGMENT B WALL ELEVATIONS ◣

WALL STATION	TOP OF WALL EL.	FINISHED GRADE EL.	EXISTING GROUND EL.
0+45.42	763.19	752.72	756.33
0+46.45	763.19	752.71	756.29
0+56.45	763.19	752.66	756.21
0+66.45	763.19	752.61	756.32
0+76.45	763.19	752.56	756.69
0+86.45	763.19	752.51	757.14
0+96.45	763.19	752.46	757.26
1+06.45	763.19	752.41	757.04
1+10.24	763.19	752.39	756.39

LEGEND

◐ OVEREXCAVATION DEPTH

◣ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

SEGMENT C WALL ELEVATIONS ◣

WALL STATION	TOP OF WALL EL.	FINISHED GRADE EL.	EXISTING GROUND EL.
1+10.24	763.19	752.39	765.10
1+15.41	772.34	754.93	763.34
1+25.41	772.35	759.86	761.68
1+35.41	772.42	764.79	759.39
1+45.41	772.39	769.71	758.00
1+50.41	772.18	772.18	756.39

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-44

DRAWN BY TEK | PLANS CK'D. KES

TYPICAL WALL SECTIONS & ELEVATION TABLES

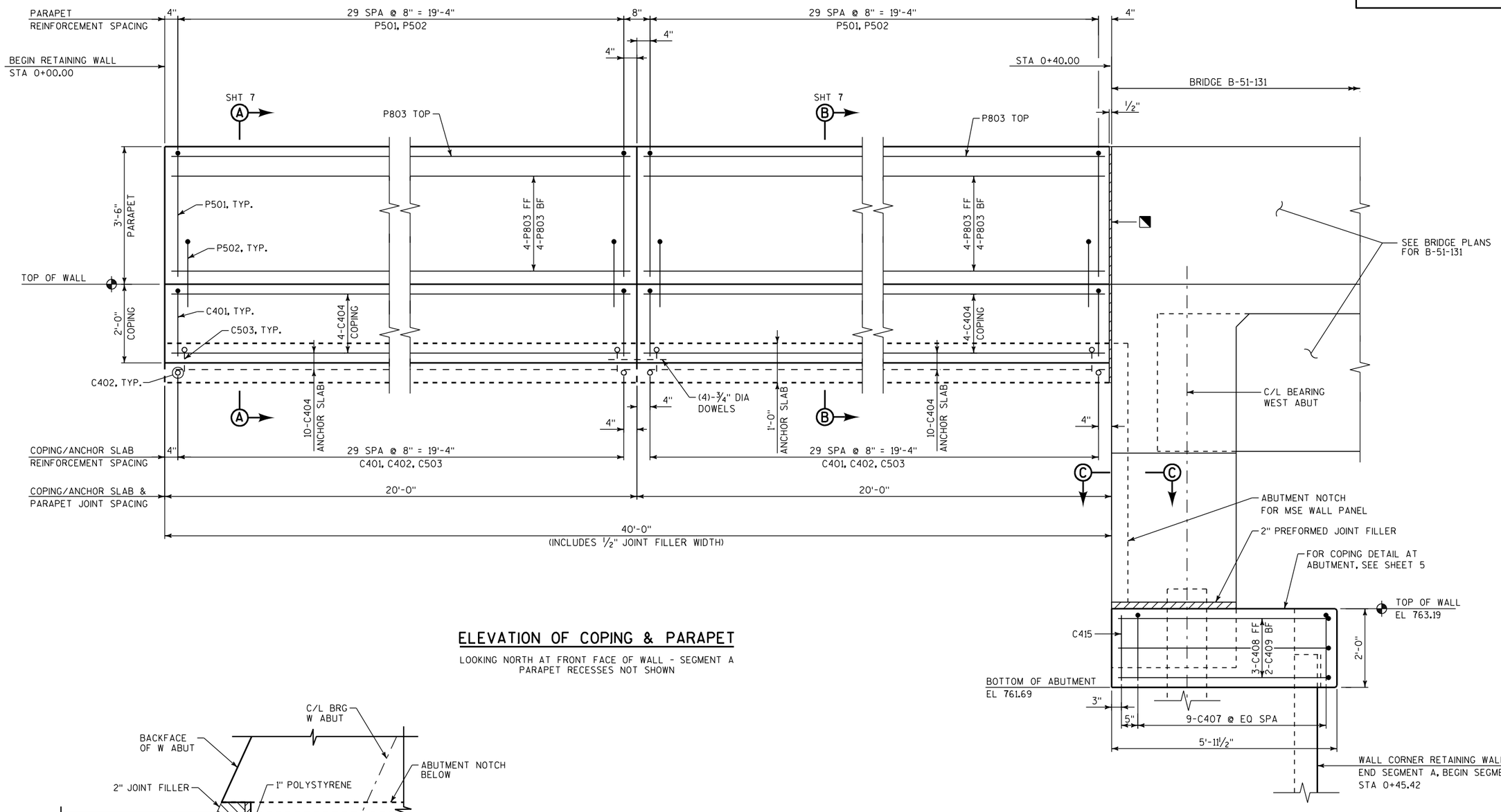
SHEET 3 OF 14

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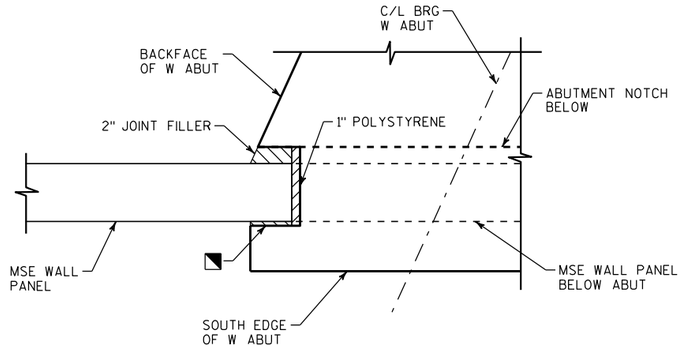
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STATE PROJECT NUMBER
1033-02-72



ELEVATION OF COPING & PARAPET

LOOKING NORTH AT FRONT FACE OF WALL - SEGMENT A
PARAPET RECESSES NOT SHOWN



SECTION C-C

WEST ABUT OF B-51-131 SHOWN

LEGEND

1/2" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR OF JOINT SEALER TO MATCH CONCRETE STAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-44

DRAWN BY: TEK | PLANS CK'D.: KES

SEGMENT A PARAPET & COPING ELEVATION

SHEET 4 OF 14

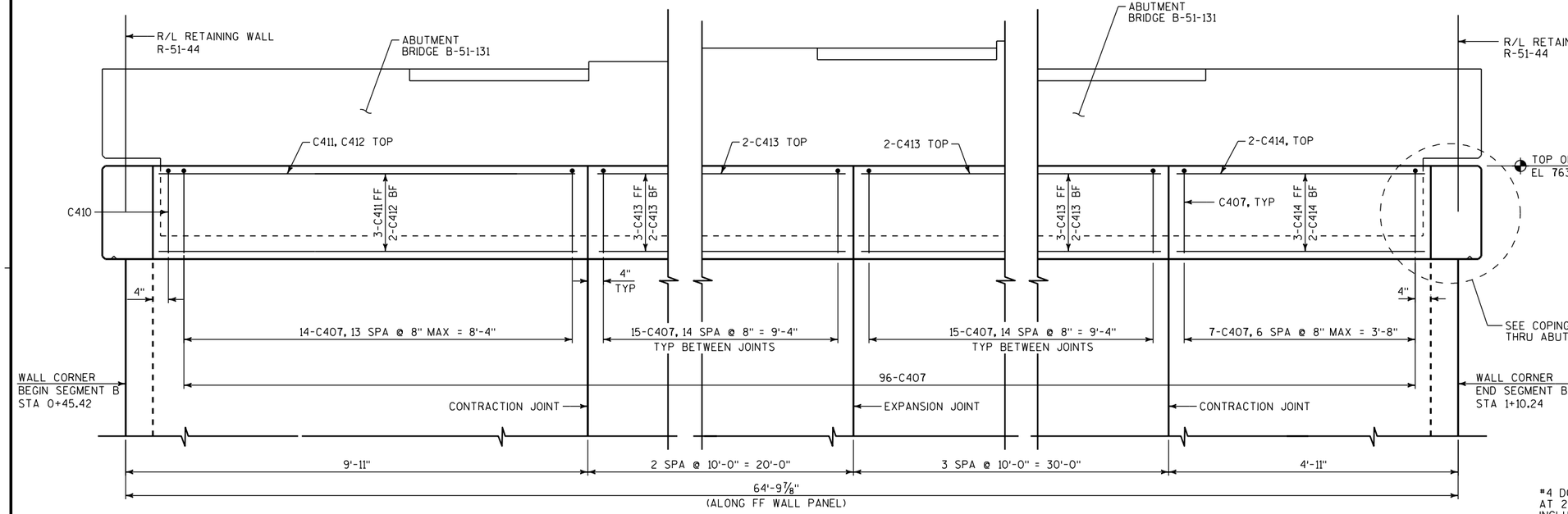
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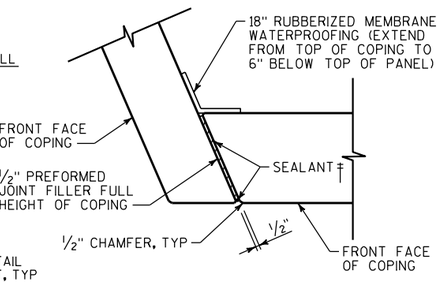
STATE PROJECT NUMBER

1033-02-72

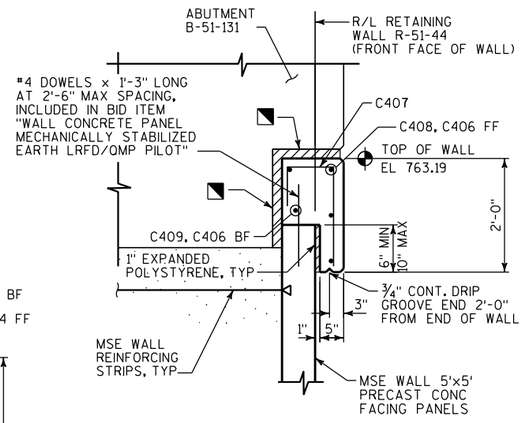


COPING ELEVATION AT ABUTMENT

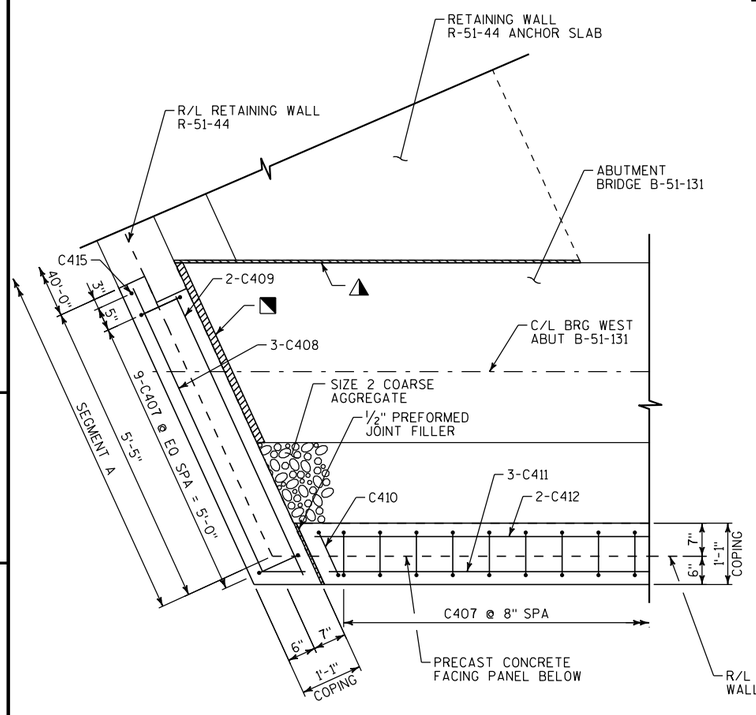
LOOKING WEST AT FRONT FACE OF WALL - SEGMENT B



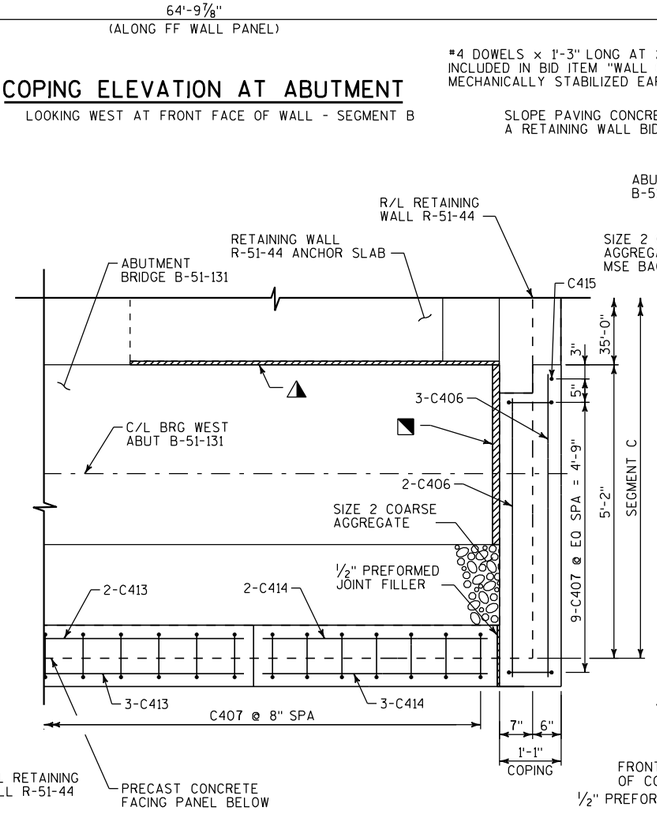
COPING EXPANSION JOINT



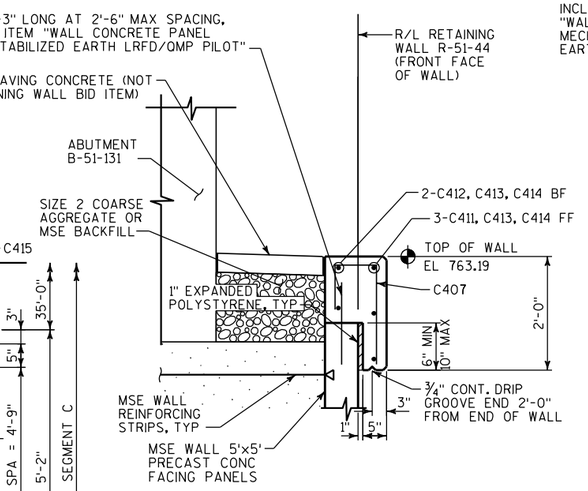
COPING DETAIL THRU ABUTMENT



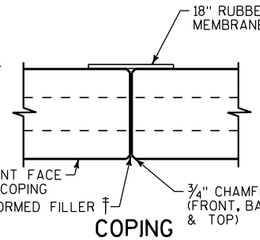
SOUTH CORNER DETAIL



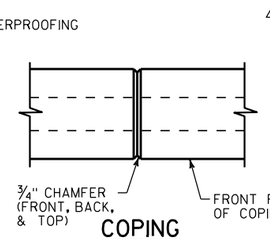
NORTH CORNER DETAIL



COPING DETAIL AT ABUTMENT



COPING EXPANSION JOINT



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.

LEGEND

† = SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER, COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE)

◥ = 2" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN.

◭ = ½" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-44

DRAWN BY TEK | PLANS CK'D. KES

SEGMENT B
COPING ELEVATION
& DETAILS

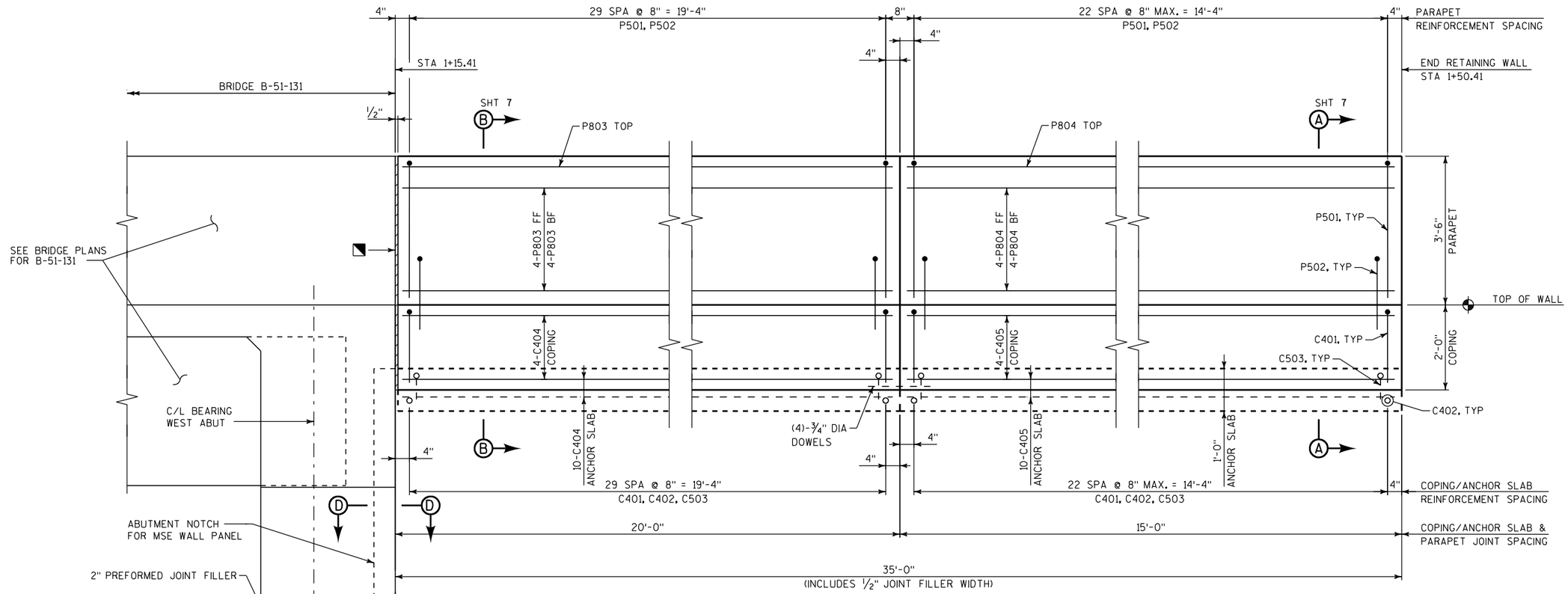
SHEET 5 OF 14

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STATE PROJECT NUMBER
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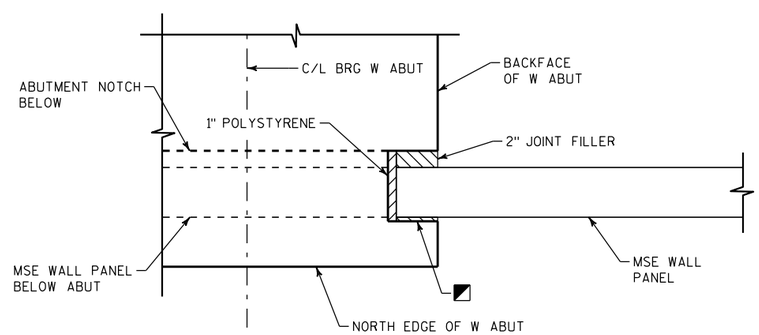


ELEVATION OF COPING & PARAPET

LOOKING SOUTH AT FRONT FACE OF WALL - SEGMENT C
PARAPET RECESSES NOT SHOWN

LEGEND

1/2" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR OF JOINT SEALER TO MATCH CONCRETE STAIN.



SECTION D-D

WEST ABUT OF B-51-131 SHOWN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-44

DRAWN BY TEK | PLANS CK'D. KES

SEGMENT C
PARAPET &
COPING ELEVATION

SHEET 6 OF 14

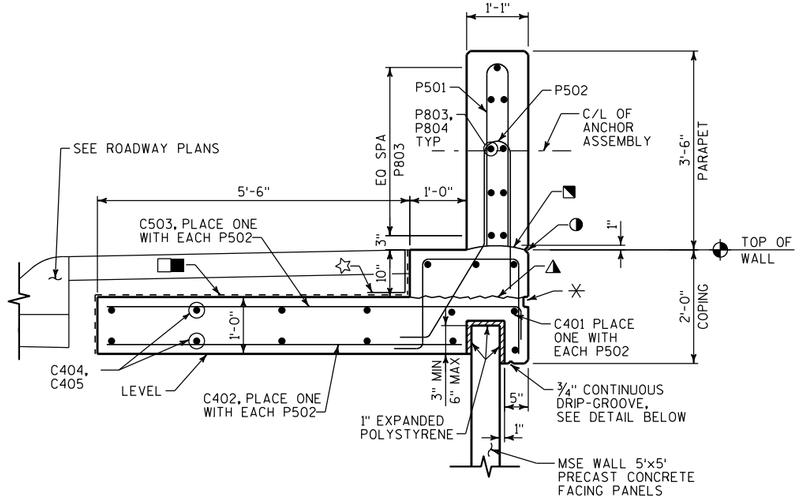
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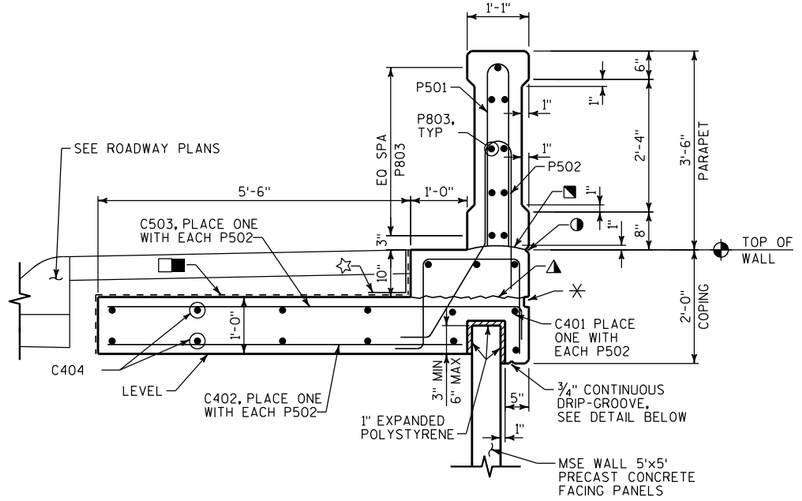
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STATE PROJECT NUMBER

1033-02-72



SECTION A-A



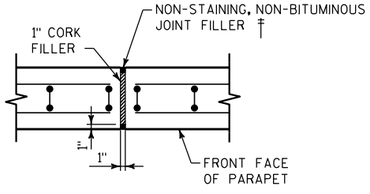
SECTION B-B

LEGEND

- CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH
- OPTIONAL CONSTRUCTION JOINT, LEAVE SURFACE ROUGHENED
- IF THE OPTIONAL CONSTRUCTION JOINT IS USED, PLACE 18" RUBBERIZED MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT. IF USED, THE RUBBERIZED MEMBRANE WATERPROOFING IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY RETAINING WALLS".
- PROVIDE RUSTICATION IF OPTIONAL CONSTRUCTION JOINT IS USED.
- 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACE AT EACH EXPANSION JOINT IN ANCHOR SLAB.
- † SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER, COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE)
- ¾" V-GROOVE, SEE DETAIL

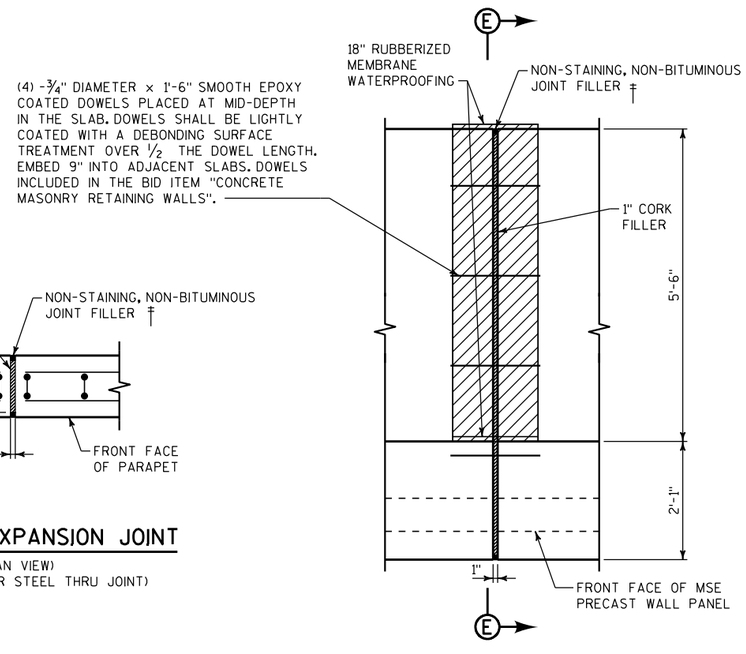
NOTE

SEE GENERAL PLAN & ELEVATION SHEET FOR LOCATION OF EXPANSION JOINTS.



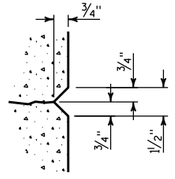
PARAPET EXPANSION JOINT

(PLAN VIEW)
(DO NOT RUN BAR STEEL THRU JOINT)

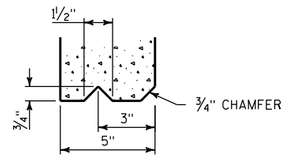


ANCHOR SLAB EXPANSION JOINT

(PLAN VIEW)
(ANCHOR SLAB REINFORCING NOT SHOWN)

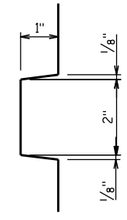


¾" V-GROOVE DETAIL

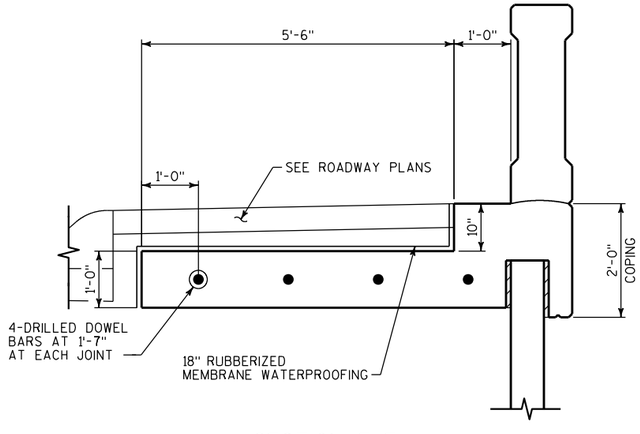


¾" CONTINUOUS DRIP GROOVE DETAIL

TERMINATE 2'-0" FROM END OF WALL



RUSTICATION DETAIL



SECTION E-E
(AT ANCHOR SLAB EXPANSION JOINT)

(ANCHOR SLAB AND PARAPET REINFORCING NOT SHOWN)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-44

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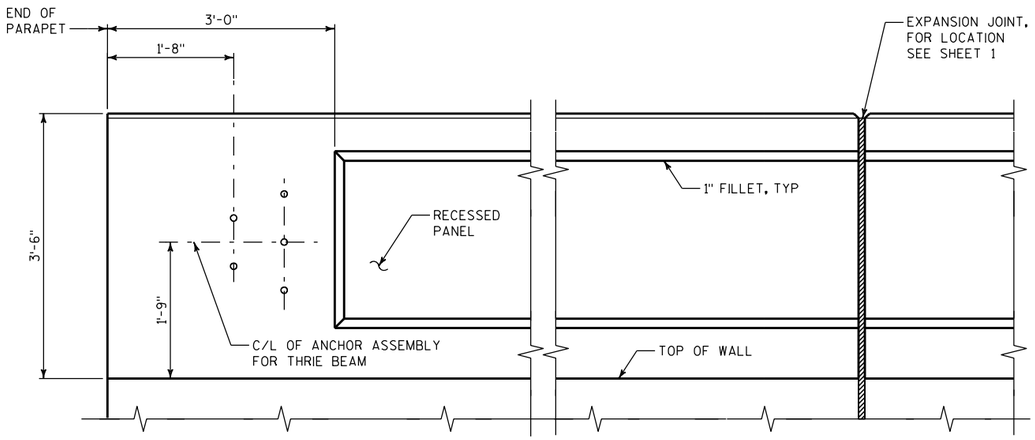
PARAPET, ANCHOR SLAB & COPING DETAILS

SHEET 7 OF 14

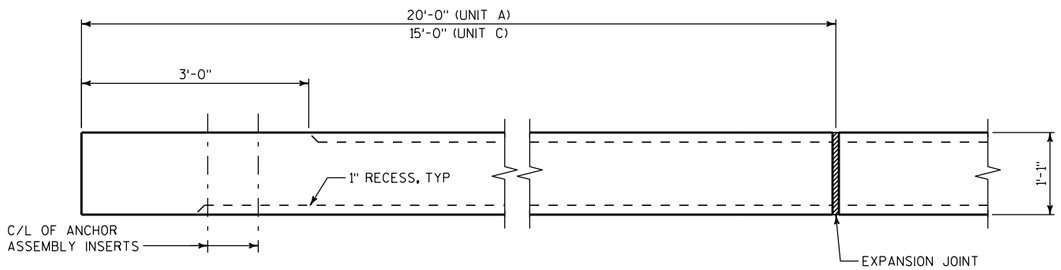
601

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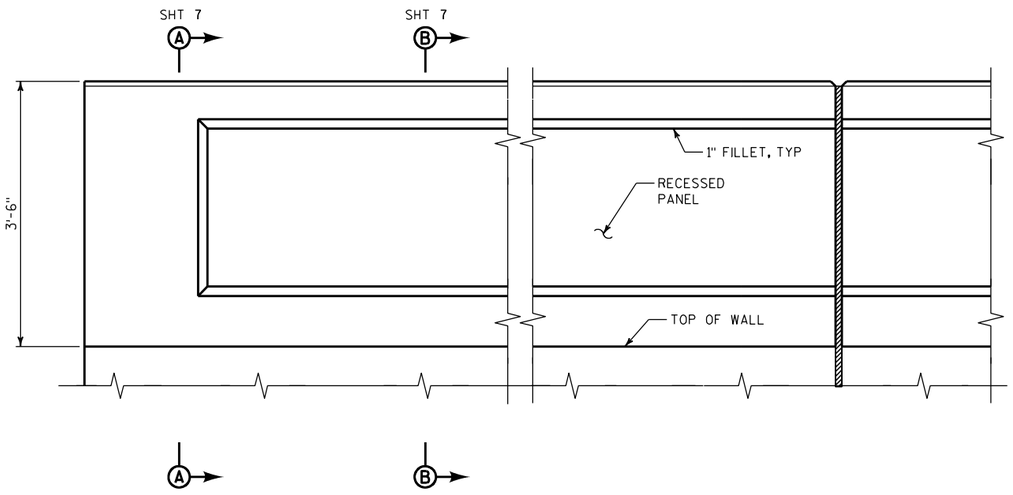
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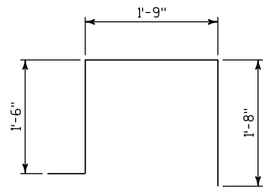
INSIDE ELEVATION



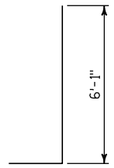
PLAN



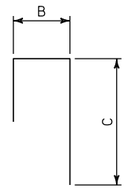
OUTSIDE ELEVATION



C401

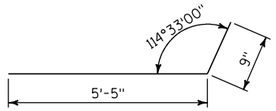


C503

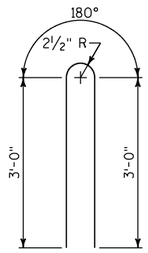


C407, C410

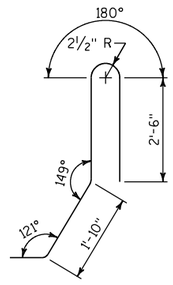
BAR MARK	DIM. "B"	DIM. "C"
C407	9"	1'-8"
C410	10"	1'-8"



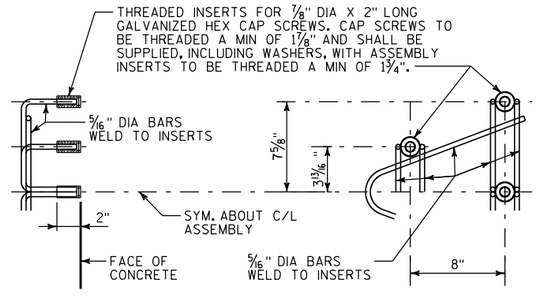
C408



P501



P502



DETAIL OF ANCHOR ASSEMBLY

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ANCHOR SLAB & COPING BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
C401	E	113	5'-4"	X	COPING TRANSVERSE TIE
C402	E	113	6'-1"		ANCHOR SLAB BOTTOM TRANSVERSE
C503	E	113	6'-7"	X	ANCHOR SLAB TOP TRANSVERSE
C404	E	45	19'-8"		ANCHOR SLAB LONGITUDINAL - 20FT SEGMENT
C405	E	15	14'-8"		ANCHOR SLAB LONGITUDINAL - 15FT SEGMENT
C406	E	5	5'-4"		COPING AT ABUTMENT LONGITUDINAL
C407	E	114	3'-0"	X	COPING THRU ABUTMENT TIE
C408	E	3	6'-2"	X	COPING THRU ABUTMENT LONGITUDINAL FF
C409	E	2	5'-3"		COPING THRU ABUTMENT LONGITUDINAL BF
C410	E	1	3'-1"	X	COPING AT ABUTMENT TRANSVERSE TIE
C411	E	3	8'-9"		COPING AT ABUTMENT LONGITUDINAL
C412	E	2	9'-0"		COPING AT ABUTMENT LONGITUDINAL
C413	E	25	9'-8"		COPING AT ABUTMENT LONGITUDINAL
C414	E	5	3'-11"		COPING AT ABUTMENT LONGITUDINAL
C415	E	2	1'-8"		COPING THRU ABUTMENT VERTICAL

◑ FOR INFORMATION ONLY. THESE BARS ARE INLCUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/OMP PILOT"

PARAPET BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
P501	E	113	6'-9"	X	PARAPET VERTICAL TIE
P502	E	113	8'-2"	X	PARAPET VERTICAL TIE
P803	E	27	19'-8"		PARAPET LONGITUDINAL - 20FT SEGMENT
P804	E	9	14'-8"		PARAPET LONGITUDINAL - 15FT SEGMENT

NOTE

SEE SHEETS 4, 6, AND 7 FOR REINFORCING IN PARAPETS.

NO.	DATE	REVISION	BY

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STRUCTURE R-51-44

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VERTICAL FACE PARAPET MODIFIED

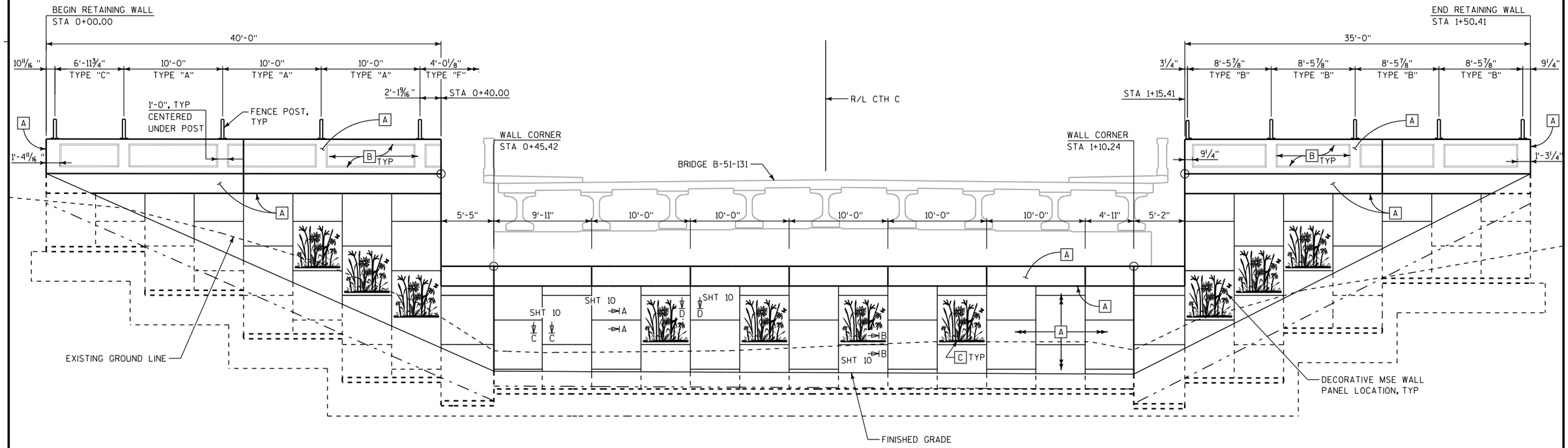
SHEET 8 OF 14

602

8

8

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ELEVATION

(LOOKING AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG THE FRONT FACE OF WALL)
(DECORATIVE FENCING NOT SHOWN)

CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION	NOTES
A	BASE COLOR	VERTICAL FACE PARAPET	BOTH SIDES, EXCEPT AS NOTED FOR ACCENT COLORS
		WALLS	EXPOSED FACES TO 1'-0" BELOW FINAL GRADE
B	ACCENT COLOR #1	VERTICAL FACE PARAPET	RECESSED PANELS ON BOTH SIDES, INCLUDING FILLETS
C	ACCENT COLOR #2	DECORATIVE PANEL	RECESSED AREAS

STAIN COLORS

THE FINAL COLOR OF THE CONCRETE FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:

BASE COLOR : 33564
ACCENT COLOR #1: 33448
ACCENT COLOR #2: 20170

NOTES

SEE FENCE DECORATIVE WALL SHEETS FOR FENCING DETAILS

DO NOT STAIN TOP OF PARAPETS OR TOP OF COPING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-44

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AESTHETIC WALL ELEVATION

SHEET 9 OF 14

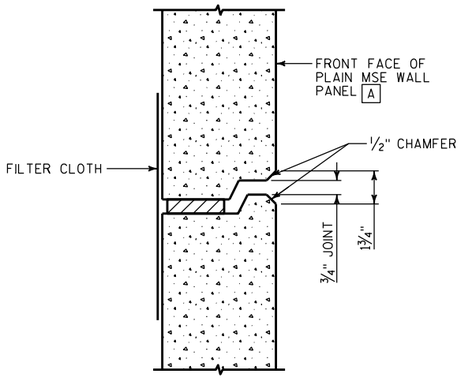
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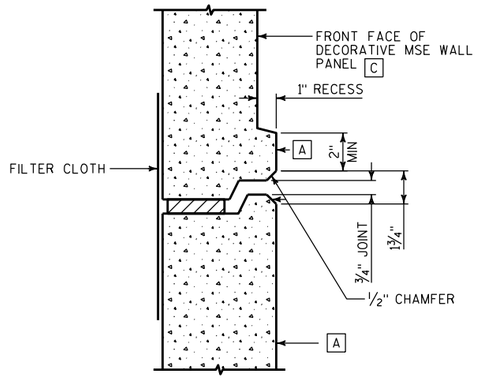
STATE PROJECT NUMBER

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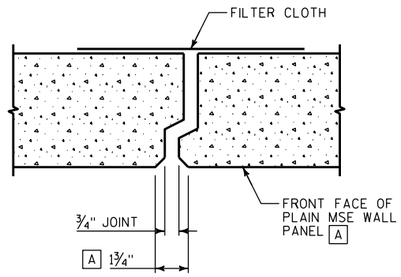
SECTION A-A

HORIZONTAL JOINT @ MSE WALL PANELS



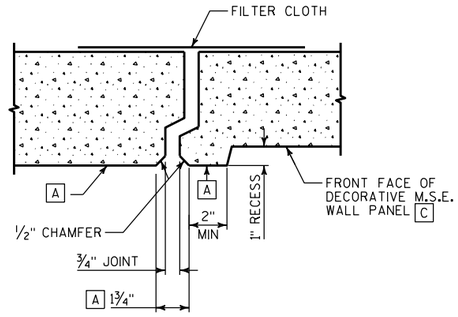
SECTION B-B

HORIZONTAL JOINT @ MSE WALL PANELS



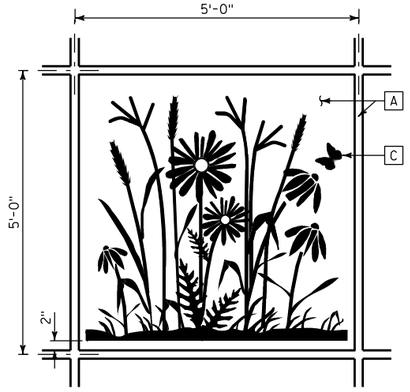
SECTION C-C

VERTICAL JOINT @ MSE WALL PANELS



SECTION D-D

VERTICAL JOINT @ MSE WALL PANELS



DECORATIVE MSE PANEL

"PRAIRIE PATTERN"

NOTE

SEE AESTHETIC WALL ELEVATION ON SHEET 9 FOR CONCRETE STAINING SCHEDULE AND SECTION LOCATIONS

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-44

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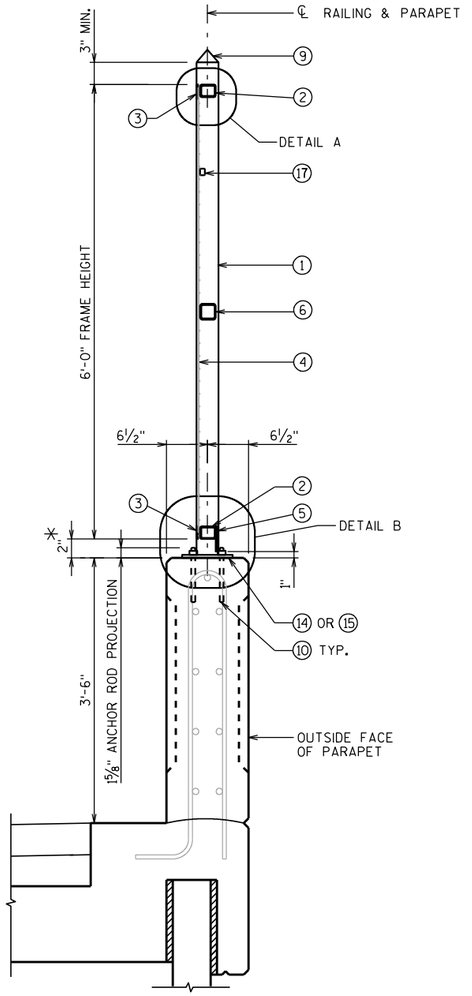
AESTHETIC WALL TREATMENT DETAILS

SHEET 10 OF 14

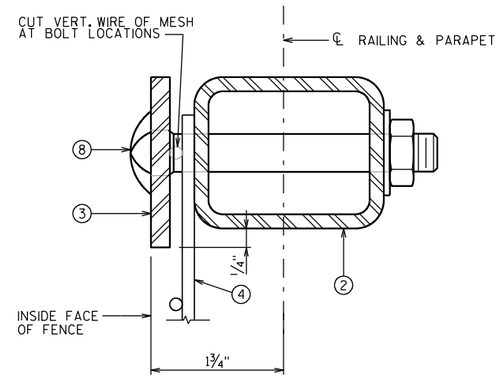
604

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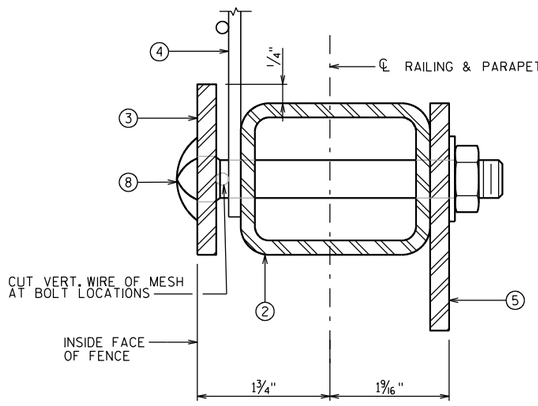
8



SECTION THRU VERTICAL FACE PARAPET



DETAIL A



DETAIL B

LEGEND

① HSS 3½ X 3½ X 3⁄16 POST WITH ¼" DIA. VENT HOLES TOP & BOTTOM ON OUTSIDE FACE. RESIZE AS NECESSARY FOR GALVANIZING PROCESS. WELD TO NO. 9 & BASE PLATE, TYP.

② HSS 2½ X 2 X 3⁄16. WELD TO NO. 6, 7 & 17.

③ PL 2¼" X ¼" WELDED FRAME. BOLT TO NO. 2 WITH NO. 8 AFTER PAINTING.

④ STEEL MESH 2" X 2" X 0.162 (8 GA.). PLACE VERTICAL WIRES ON INSIDE FACE OF PARAPET.

⑤ PL ¼" X WIDTH VARIES. PROVIDE SHORT SLOTTED VERT. HOLES FOR NO. 8.

⑥ HSS 2½" X 2½" X 3⁄16. WELD TO NO. 2, 6, 7, 18 & 19.

⑦ ¾" × ¾" BAR. WELD TO NO. 2, 6, 17, 18 & 19.

⑧ ½" DIA. CARRIAGE BOLT, WASHER AND NUT. PROVIDE ⅝" X ⅝" SQUARE HOLE IN NO. 3 & NO. 2 OF PANEL TYPE G ONLY FOR SQUARE PORTION OF THE BOLT HEAD.

⑨ 3½" X 3½" PYRAMIDAL CAP. WELD TO NO. 1.

⑩ ⅝" DIA. CONCRETE MASONRY ANCHOR TYPE S EPOXY, 7" MINIMUM EMBEDMENT WITH A MINIMUM PULLOUT OF 20 KIPS.

⑪ PL 5⁄16" X 4½" X 0'-6" CONNECTION WITH 2" DIA. HOLES FOR NO. 8. USE NO. 12 TO COVER 2" DIA. ADJUSTMENT HOLES. USE STANDARD HOLES ON CANTILEVERED FENCE PANEL AT ABUTMENTS.

⑫ PL ⅜" X 2" X 4½".

⑬ PL WASHER ¼" X 3½" X 3½".

⑭ PL ½" X 8" X 10" BASE PLATE. WELD TO NO. 1.

⑮ PL ½" X 8" X 1'-0" BASE PLATE. WELD TO NO. 1.

⑯ ½" DIA. BOLT, WASHER & NUT. TACK WELD NUT TO NO. 2.

⑰ ¾" X ¾" CURVED BAR. WELD TO NO. 2, 7, 18 & 19.

⑱ ¾" PLATE. WELD TO NO. 6, 7 & 17.

⑲ ¾" PLATE. WELD TO NO. 6 & 17.

✳ THE DIMENSION BETWEEN THE BOTTOM OF THE WELDED FRAME AND THE TOP OF THE PARAPET VARIES DUE TO THE VERTICAL PROFILE OF THE STRUCTURE. SET THIS DIMENSION TO 3" ADJACENT TO THE POST WHERE NO. 5 HAS THE SMALLEST VERTICAL DIMENSION.

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NOTES

THE BID ITEM SHALL BE "FENCE DECORATIVE WALL" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

STRUCTURAL TUBING SHALL BE A.S.T.M. A500, GRADE B. ROLLED SHAPES, PLATES, BARS AND SHIMS SHALL BE A.S.T.M. A709, GRADE 36.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE POST VERTICAL.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE A.S.T.M. A307 AND SHALL BE GALVANIZED.

STANDARD WASHERS SHALL BE USED TO SHIM BASE PLATES IF REQUIRED. ALL WASHERS SHALL BE GALVANIZED.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

AFTER FABRICATION AND PRIOR TO BOLTING AND ASSEMBLING FENCE COMPONENTS, STEEL SHALL BE BLAST CLEANED PER SSPC-SP 6 AND GALVANIZED ACCORDING TO ASTM A 123. REPAIR ZINC COATING DAMAGED DURING FABRICATION AS SPECIFIED IN 635.3.4.

ALL WELDS SHALL BE PREQUALIFIED ACCORDING TO THE STRUCTURAL WELDING CODE STEEL (AWS D1.1). THE MINIMUM SIZE OF FILLET WELDS IS 3⁄16".

COVER THE 2" X 2" STEEL MESH WITH A COLORED POLYMER COATING. COAT ALL OTHER FENCING COMPONENTS WITH AN EPOXY PAINT SYSTEM. TOUCH UP DAMAGED PORTIONS OF PAINT AFTER PANEL ERECTION. SEE SPECIAL PROVISIONS FOR REQUIREMENTS.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE R-51-44

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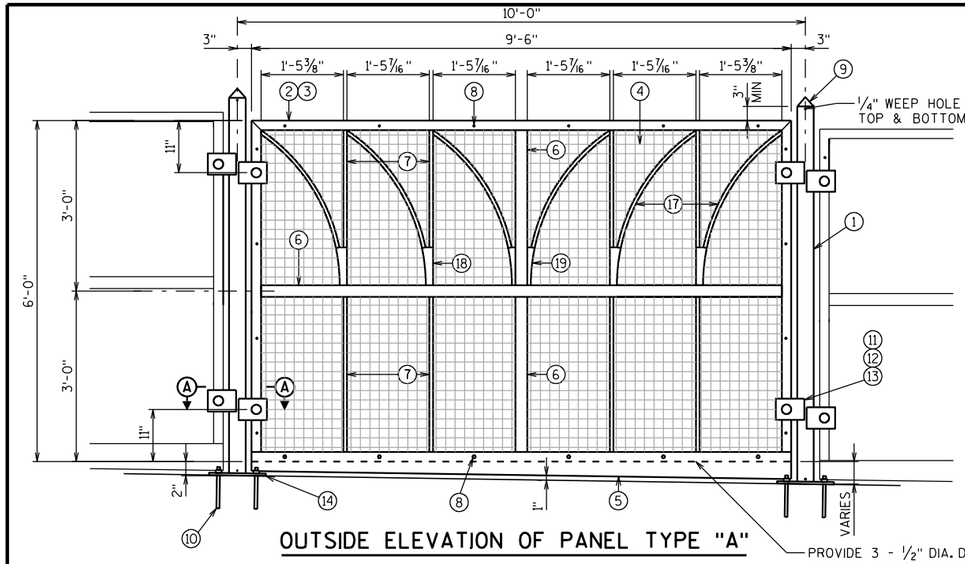
FENCE DECORATIVE WALL (1 OF 4)

SHEET 11 OF 14

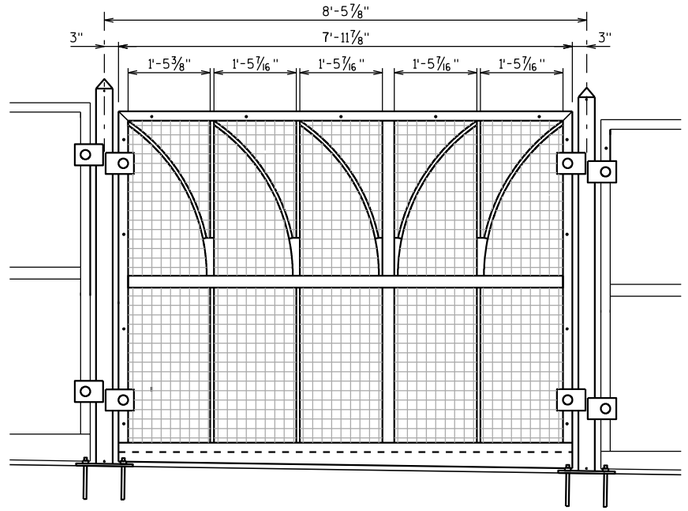
605

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OUTSIDE ELEVATION OF PANEL TYPE "A"

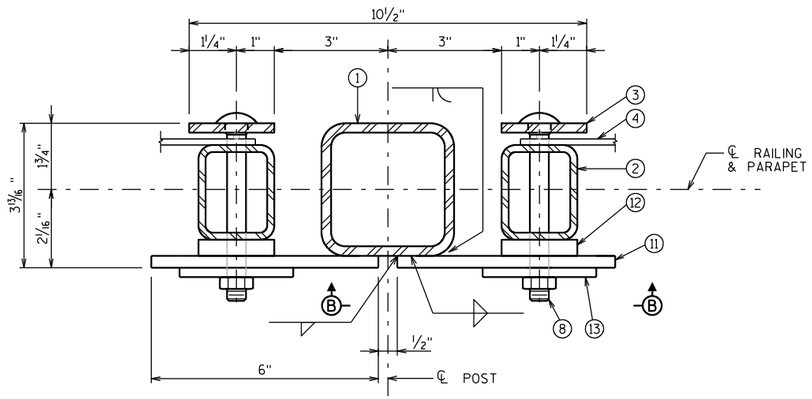


OUTSIDE ELEVATION OF PANEL TYPE "B"

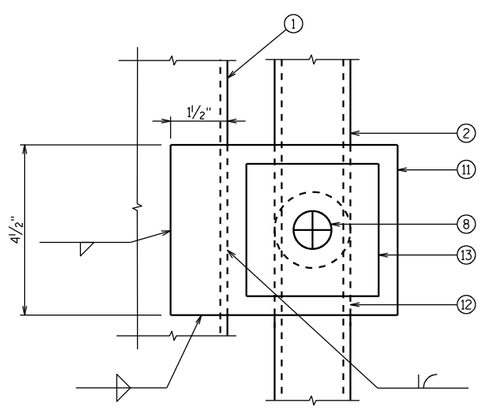
NOTES

FOR NOTES AND LEGEND, SEE SHEET 11.

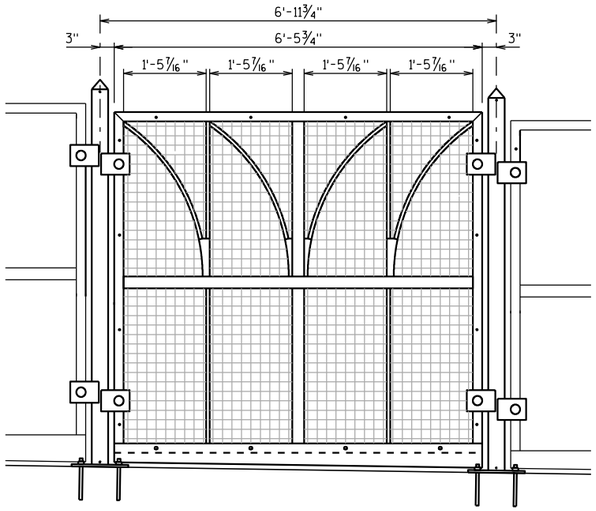
TYPICAL MEMBER SIZES, WELDING AND BOLTING DETAILS, AND MATERIALS ARE SHOWN IN 'OUTSIDE ELEVATION OF PANEL TYPE "A" ON THIS SHEET.



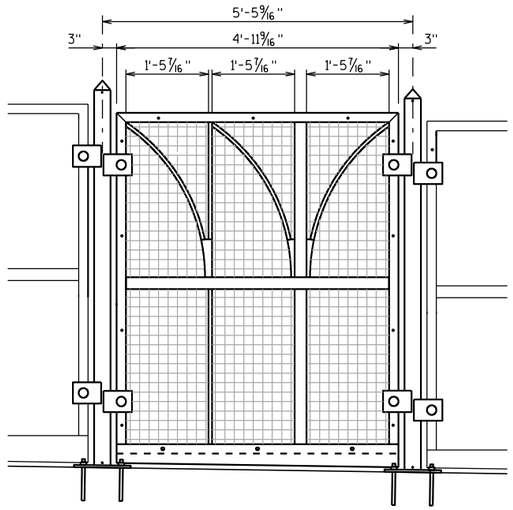
SECTION A-A



ELEVATION B-B



OUTSIDE ELEVATION OF PANEL TYPE "C"



OUTSIDE ELEVATION OF PANEL TYPE "D"

NO.	DATE	REVISION	BY

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STRUCTURE R-51-44

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FENCE DECORATIVE WALL (2 OF 4)

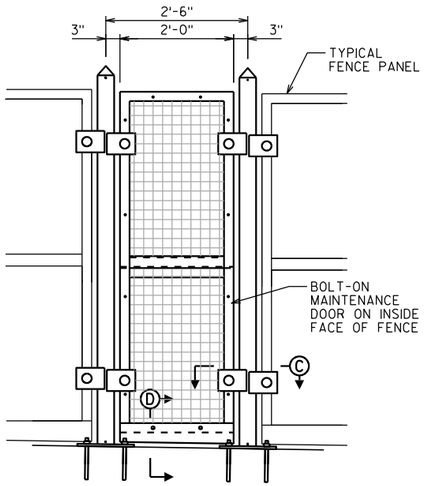
SHEET 12 OF 14

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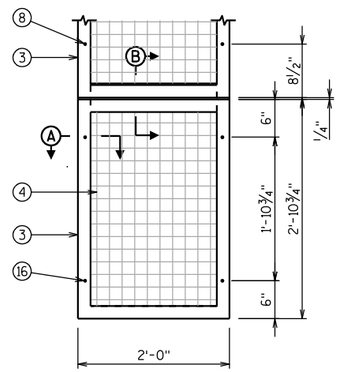
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8

FILE NAME : S:\FinalDesign\20\10330272_M\Structs\R-51-44\cds\R5144Sht12.dgn PLOT DATE : 08-NOV-2013 09:52 PLOT BY : MSCKES PLOT NAME : R5144Sht12 PLOT SCALE : 0.166667:1

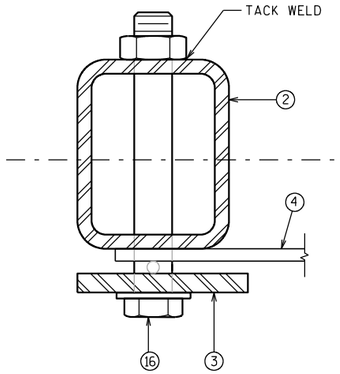


OUTSIDE ELEVATION OF PANEL TYPE "G"

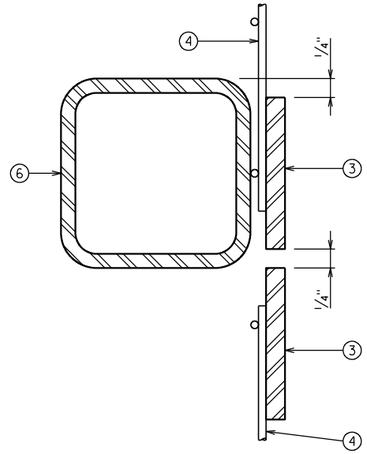


MAINTENANCE DOOR DETAIL

INSIDE ELEVATION



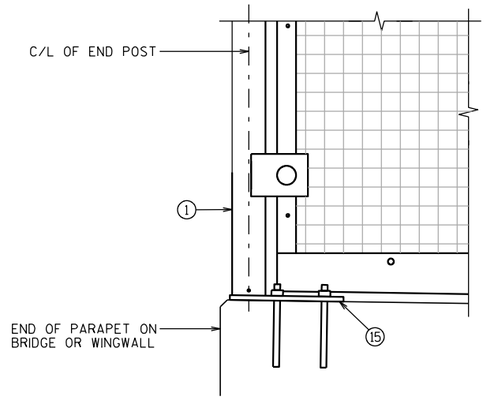
SECTION A-A



SECTION B-B

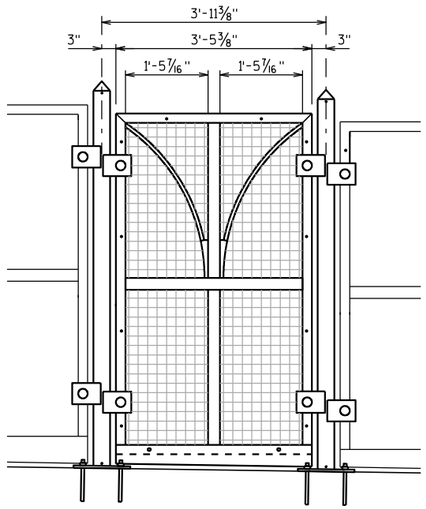
STATE PROJECT NUMBER

1033-02-72

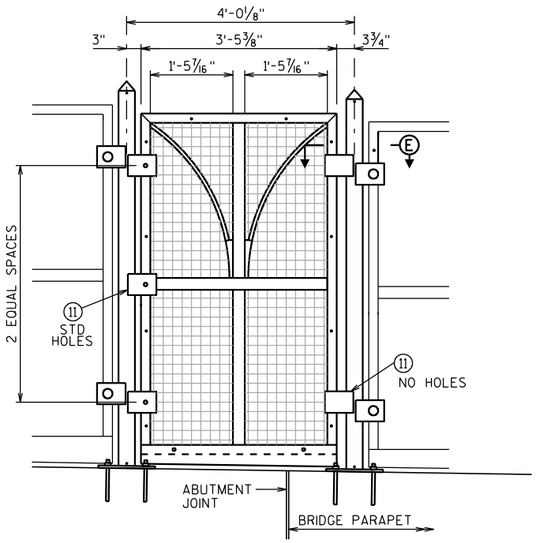


END POST DETAIL

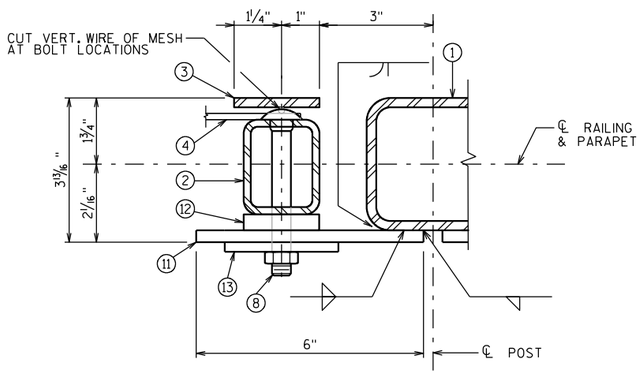
(SEE DECK PLAN FOR LOCATIONS)



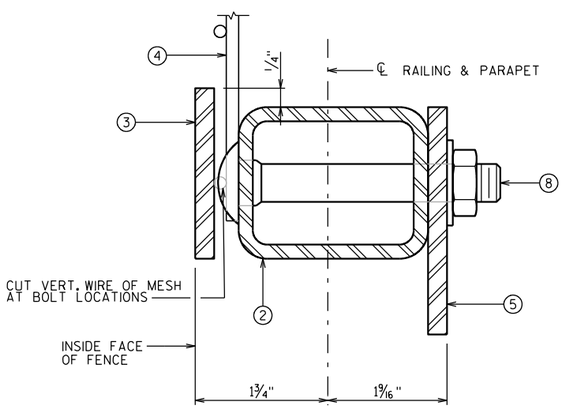
OUTSIDE ELEVATION OF PANEL TYPE "E"



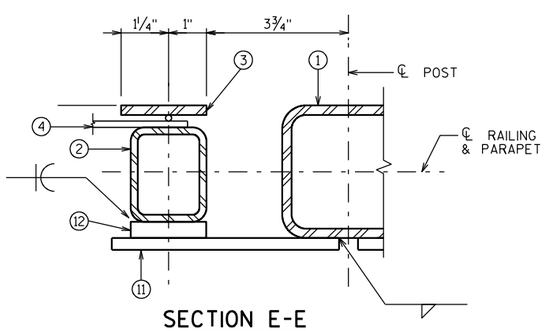
OUTSIDE ELEVATION OF PANEL TYPE "F"



SECTION C-C



SECTION D-D



SECTION E-E

NOTES

FOR NOTES AND LEGEND, SEE SHEET 11.

FOR TYPICAL MATERIALS, MEMBER SIZES, WELDING AND BOLTING DETAILS, SEE "OUTSIDE ELEVATION OF TYPICAL FENCE PANEL" ON SHEET 12.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-44

DRAWN BY	TEK	PLANS CK'D.	KES

FENCE DECORATIVE WALL (3 OF 4)

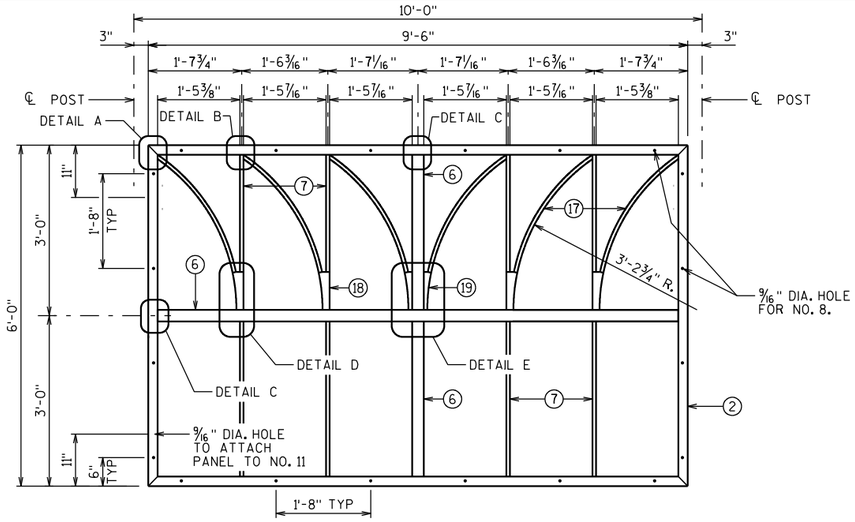
SHEET 13 OF 14

607

8

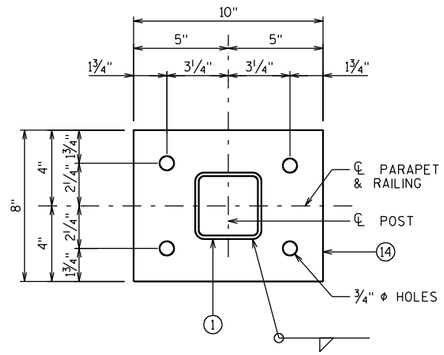
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STATE PROJECT NUMBER
1033-02-72

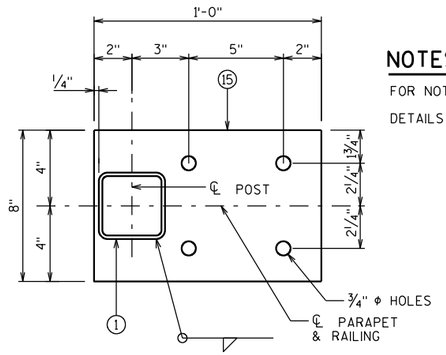


DECORATIVE FENCE WING PANEL

TYPICAL 10' PANEL SHOWN



BASE PLATE



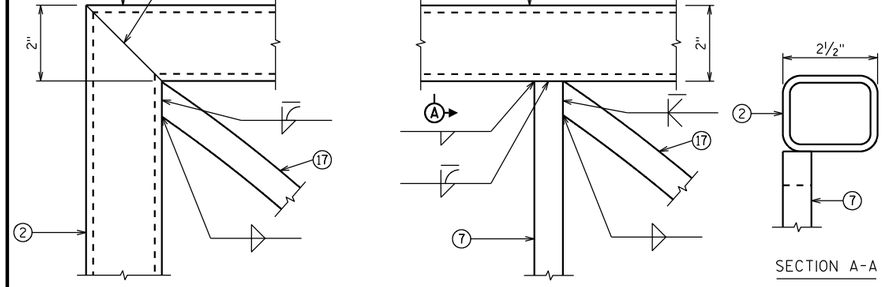
END BASE PLATE

VERTICAL FACE PARAPET BASE PLATE DETAILS

NOTES

FOR NOTES AND LEGEND, SEE SHEET 11.

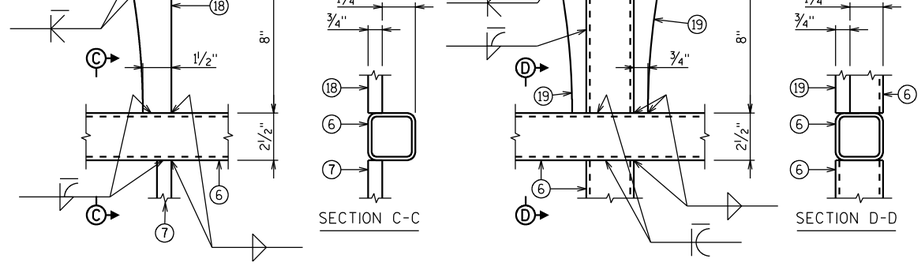
DETAILS SHOWN ARE TYPICAL FOR ALL WALL PANELS.



DETAIL A

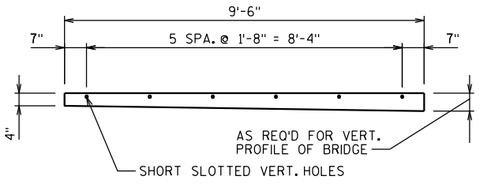
DETAIL B

DETAIL C

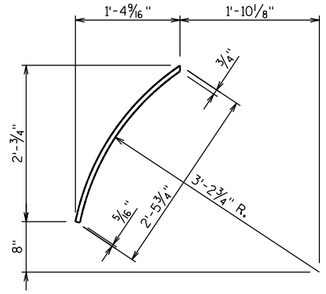


DETAIL D

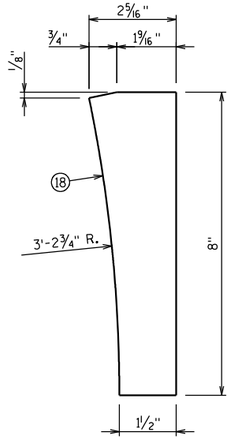
DETAIL E



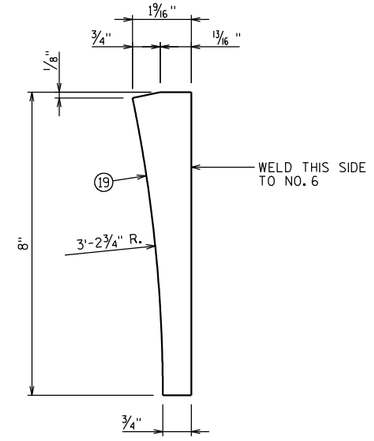
¼" PLATE (NO. 5)



¾" X ¾" CURVED BAR (NO. 17)



¾" PLATE (NO. 18)



¾" PLATE (NO. 19)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-44

DRAWN BY TEK | PLANS CK'D. KES

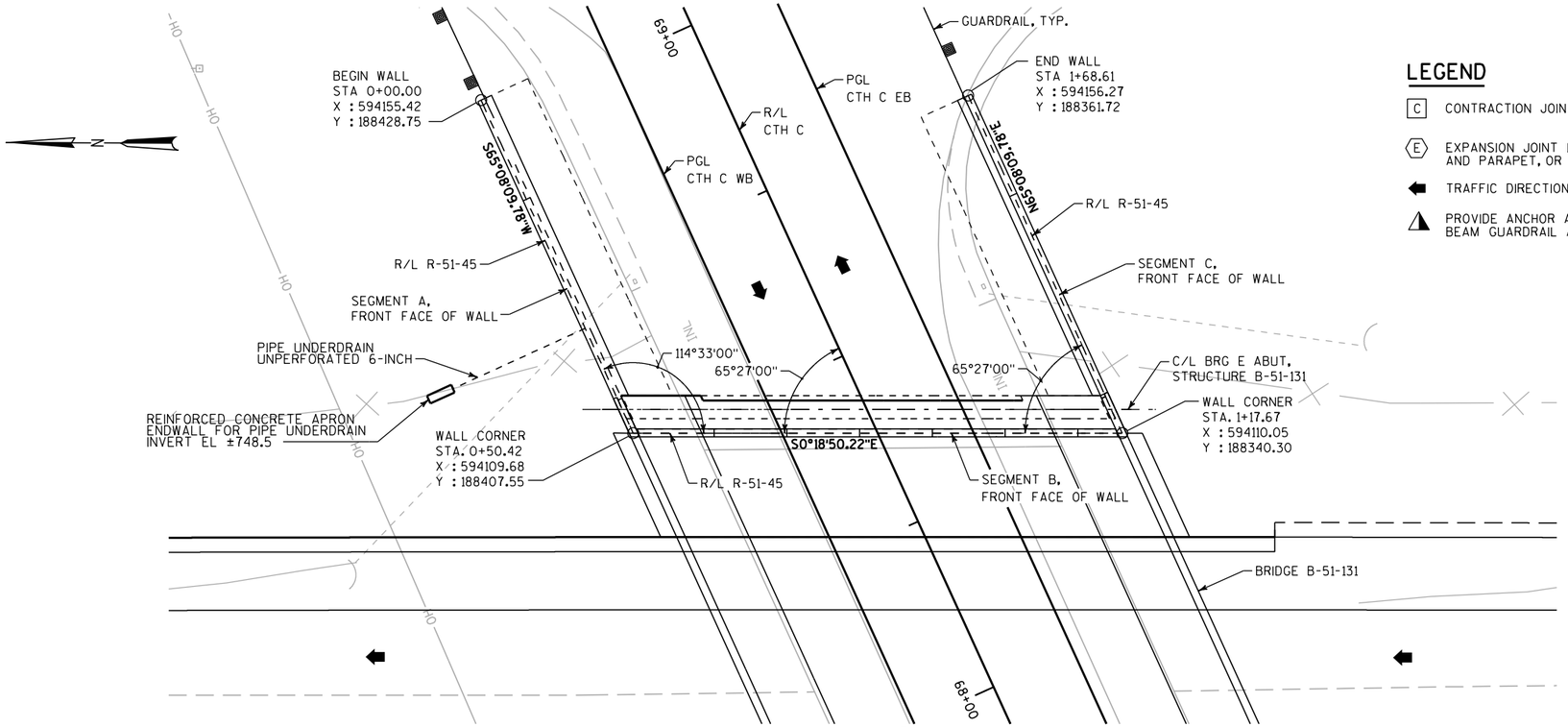
FENCE DECORATIVE WALL (4 OF 4)

SHEET 14 OF 14

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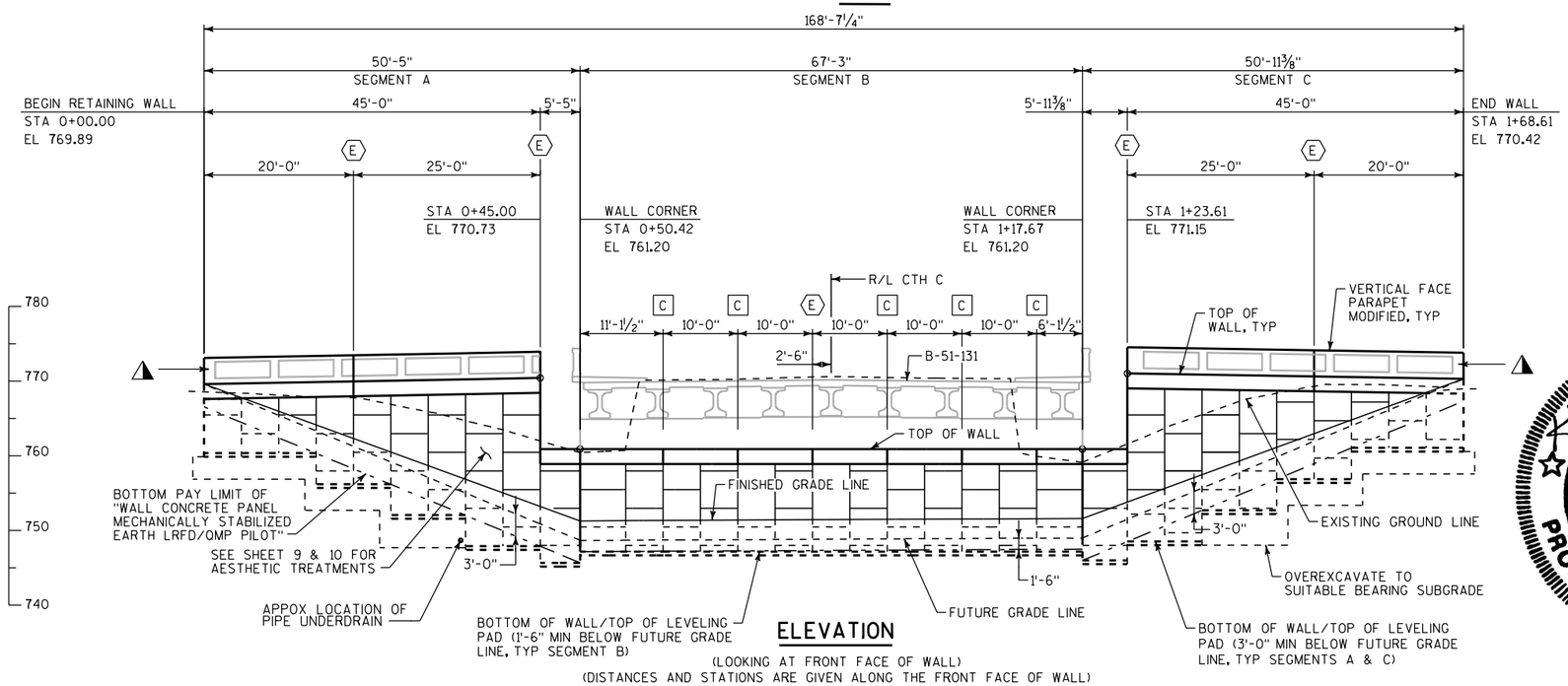
8

8



LEGEND

- [C] CONTRACTION JOINT IN COPING
- ⟨E⟩ EXPANSION JOINT IN ANCHOR SLAB, AND PARAPET, OR COPING
- TRAFFIC DIRECTION
- PROVIDE ANCHOR ASSEMBLY FOR THRIE BEAM GUARDRAIL ATTACHMENT



ELEVATION

(LOOKING AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG THE FRONT FACE OF WALL)
(DECORATIVE FENCING NOT SHOWN)

STATE PROJECT NUMBER
1033-02-72

DESIGN DATA

DESIGN SPECIFICATION:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012

MATERIAL PROPERTIES:
CONCRETE MASONRY RETAINING WALL _____ f'c = 4,000 PSI
PRECAST CONCRETE WALL PANELS _____ f'c = 4,000 PSI
BAR STEEL REINFORCEMENT _____ fy = 60,000 PSI
STRUCTURAL STEEL CARBON _____ fy = 36,000 PSI

LIVE LOAD:
LIVE LOAD SURCHARGE _____ 240 PSF

DESIGN THE MSE WALL IN FRONT OF THE ABUTMENT BODY TO RESIST THE FORCE FROM ALL EARTH PRESSURE ACTING ON THE ABUTMENT BELOW THE BEAMS SEATS AND A LIVE LOAD VERTICAL SURCHARGE OF 240 PSF.

DESIGN THE RETAINING WALL ADJACENT TO THE WEST ABUTMENT OF BRIDGE B-51-131 FOR A HORIZONTAL BACKSLOPE BEHIND THE WALL AND A LIVE LOAD VERTICAL SURCHARGE OF 240 PSF.

NOTES

SEE BRIDGE B-51-131 PLANS FOR SOIL BORING LOGS.

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. QUANTITIES, NOTES & PROFILE GRADE LINES
3. TYPICAL WALL SECTIONS AND ELEVATION TABLES
4. SEGMENT A PARAPET & COPING ELEVATION
5. SEGMENT B COPING ELEVATION & DETAILS
6. SEGMENT C PARAPET & COPING ELEVATION
7. PARAPET, ANCHOR SLAB & COPING DETAILS
8. VERTICAL FACE PARAPET MODIFIED
9. AESTHETIC WALL ELEVATION
10. AESTHETIC WALL TREATMENT DETAILS
11. FENCE DECORATIVE WALL (1 OF 4)
12. FENCE DECORATIVE WALL (2 OF 4)
13. FENCE DECORATIVE WALL (3 OF 4)
14. FENCE DECORATIVE WALL (4 OF 4)

STRUCTURES DESIGN CONTACTS
BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

NO.	DATE	REVISION	BY

Milwaukee Transportation Partners LLC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 11/11/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN KARL E. SCHMID E-30812 MILWAUKEE, WI PROFESSIONAL ENGINEER

11/08/2013

STRUCTURE R-51-45

EAST RETAINING WALL AT CTH C OVER IH 94

COUNTY	TOWN/~~CITY/VILLAGE~~
RACINE	YORKVILLE

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
EKM	MS	TEK	KES

GENERAL PLAN & ELEVATION

SHEET 1 OF 14

609

FILE NAME : S:\FinalDesign\20\10330272_M\Structs\R-51-45\cds\R5145Sht01.dgn PLOT DATE : 08-NOV-2013 09:11 PLOT BY : MSCKES PLOT NAME : R5145Sht01 PLOT SCALE : 20:1

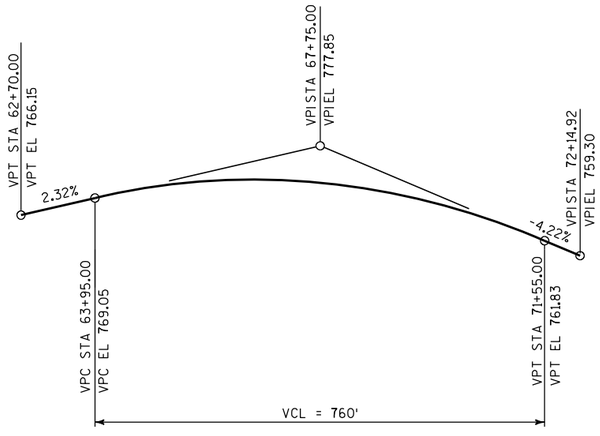
STATE PROJECT NUMBER
1033-02-72

TOTAL ESTIMATED QUANTITIES

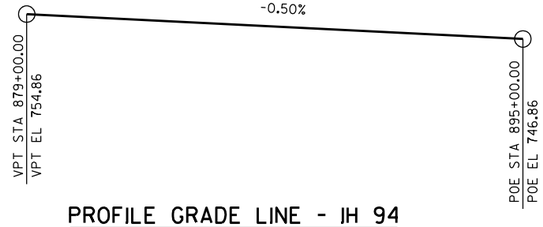
BID ITEM NO.	BID ITEMS	UNIT	SEGMENT A	SEGMENT B	SEGMENT C	TOTAL
206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS R-51-45	LS	——	——	——	1
209.0100	BACKFILL GRANULAR	CY	55	——	55	110
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	21	——	21	42
505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	3,710	——	3,710	7,420
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	3	1	3	7
517.1010.S.0007	CONCRETE STAINING R-51-45	SF	860	910	825	2,595
517.1050.S.0004	ARCHITECTURAL SURFACE TREATMENT R-51-45	SF	75	100	75	250
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	20	——	——	20
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	51	68	51	170
612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	1	——	——	1
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1	——	1	2
645.0140	GEOTEXTILE FABRIC TYPE SAS	SY	22	150	22	194
SPV.0090.4410	FENCE DECORATIVE WALL	LF	50	——	51	101
SPV.0165.4710	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT	SF	650	910	655	2,215
	NON-BID ITEMS					
	EXPANDED POLYSTYRENE	SIZE				1"
	PREFORMED JOINT FILLER	SIZE				1/2", 1" & 2"
	NON-BITUMINOUS JOINT FILLER	SIZE				1/2", 1" & 2"
	CORK FILLER	SIZE				1"
	NAME PLATE	EACH				1

ALL ITEMS ARE CATEGORY 0225

⚠ QUANTITY BASED ON A 2'-0" OVER EXCAVATION DEPTH ALONG SEGMENTS A AND C ONLY



PROFILE GRADE LINE - CTH C



PROFILE GRADE LINE - IH 94

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS		
WALL HEIGHT (FEET)	22.8	14.0
EXPOSED WALL HEIGHT (FEET)	19.8	12.5
MINIMUM LENGTH OF REINFORCEMENT (FEET) ◐	17.2	12.0
WALL STATION	0+45	0+60
BORING USED	BR-3	BR-3
CAPACITY TO DEMAND RATIO (CDR)		
SLIDING	1.45	1.04
ECCENTRICITY	1.31	8.29
BEARING	1.00	2.69
GLOBAL STABILITY	1.12	1.11

◐ FINAL DESIGN FOR INTERNAL STABILITY, EXTERNAL SLIDING, AND ECCENTRICITY AT OTHER WALL STATIONS IS THE RESONSIBILITY OF THE CONTRACTOR'S WALL DESIGNER.

SOIL PARAMETERS

SOIL DESCRIPTION	UNIT WEIGHT (PCF)	UNDRAINED		DRAINED	
		FRICTION ANGLE (DEGREES)	COHESION (PSF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
BACKFILL ✳	120	30	0	30	0
CLAY FILL	120	0	2,000	30	20
VERY STIFF LEAN CLAY	140	0	3,500	33	150
SANDY SILT	130	36	0	36	0
STIFF TO VERY STIFF LEAN CLAY	135	0	2,000	32	100

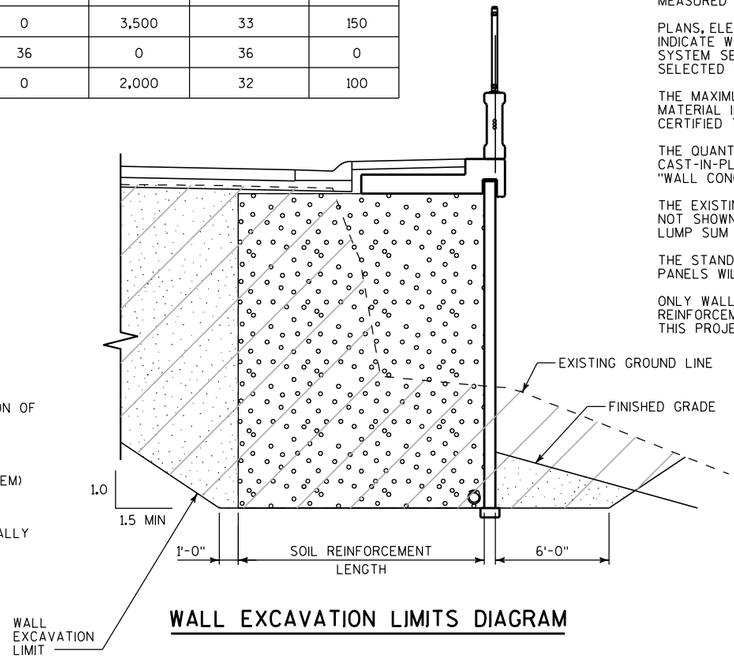
✳ DESIGN WALL FOR THESE VALUES

LEGEND

EXCAVATION REQUIRED FOR CONSTRUCTION OF MSE WALL - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRDF/QMP PILOT"

EMBANKMENT (NOT A RETAINING WALL ITEM)

MSE BACKFILL - INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT"



WALL EXCAVATION LIMITS DIAGRAM

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL EXPOSED EDGES OF CONCRETE 3/4", UNLESS NOTED OTHERWISE.

ALL STATIONS AND ELEVATIONS ARE IN FEET, ELEVATIONS ARE REFERENCED TO THE (NGVD) NORTH AMERICAN VERTICAL DATUM OF 1988.

ALL DIMENSIONS ARE ALONG THE FRONT FACE OF WALL, UNLESS SHOWN OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER, UNLESS SHOWN OTHERWISE.

THE COST OF FURNISHING AND PLACING MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT".

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7 INCHES. FOR PANEL THICKNESSES DIFFERENT THAN 7 INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF WALL R-51-45 WITH THE EAST ABUTMENT OF BRIDGE B-51-131.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS, AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT".

THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT".

ALL BAR STEEL REINFORCEMENT IN CAST-IN-PLACE CONCRETE TO BE EPOXY COATED.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR THE SEGMENTS A & C CAST-IN-PLACE ANCHOR SLAB/COPING IS PAID FOR UNDER THE ITEM "CONCRETE MASONRY RETAINING WALLS" AND "BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS", RESPECTIVELY.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT" IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE LEVELING PAD TO THE TOP OF WALL AS SHOWN IN THE PLANS. THE TOP OF LEVELING PAD IS ASSUMED TO BE 3'-0" BELOW FUTURE FINISHED GRADE FOR SEGMENTS A & C AND 1'-6" BELOW FUTURE FINISHED GRADE FOR SEGMENT B. WALL AREAS CONSTRUCTED OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT.

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30° WITHOUT CERTIFIED TEST VALUES.

THE QUANTITIES OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR THE CAST-IN-PLACE CONCRETE COPING (SEGMENTS A, B & C) ARE INCLUDED IN THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT".

THE EXISTING 2-SPAN CONTINUOUS STEEL PLATE GIRDER STRUCTURE (B-51-72) IS NOT SHOWN IN THESE PLANS. THE REMOVAL OF THE STRUCTURE IS INCLUDED IN A LUMP SUM BID ITEM AS PART OF THE B-51-131 BRIDGE QUANTITIES.

THE STANDARD PANEL SIZE SHALL BE 5'HIGH X 5'WIDE. 5'HIGH X 10'WIDE STANDARD PANELS WILL NOT BE ALLOWED.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT IS HINGED AT THE PANEL CONNECTION CAN BE USED FOR THIS PROJECT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-45

DRAWN BY TEK | PLANS CK'D. KES

QUANTITIES, NOTES & PROFILE GRADE LINES

SHEET 2 OF 14

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8

8

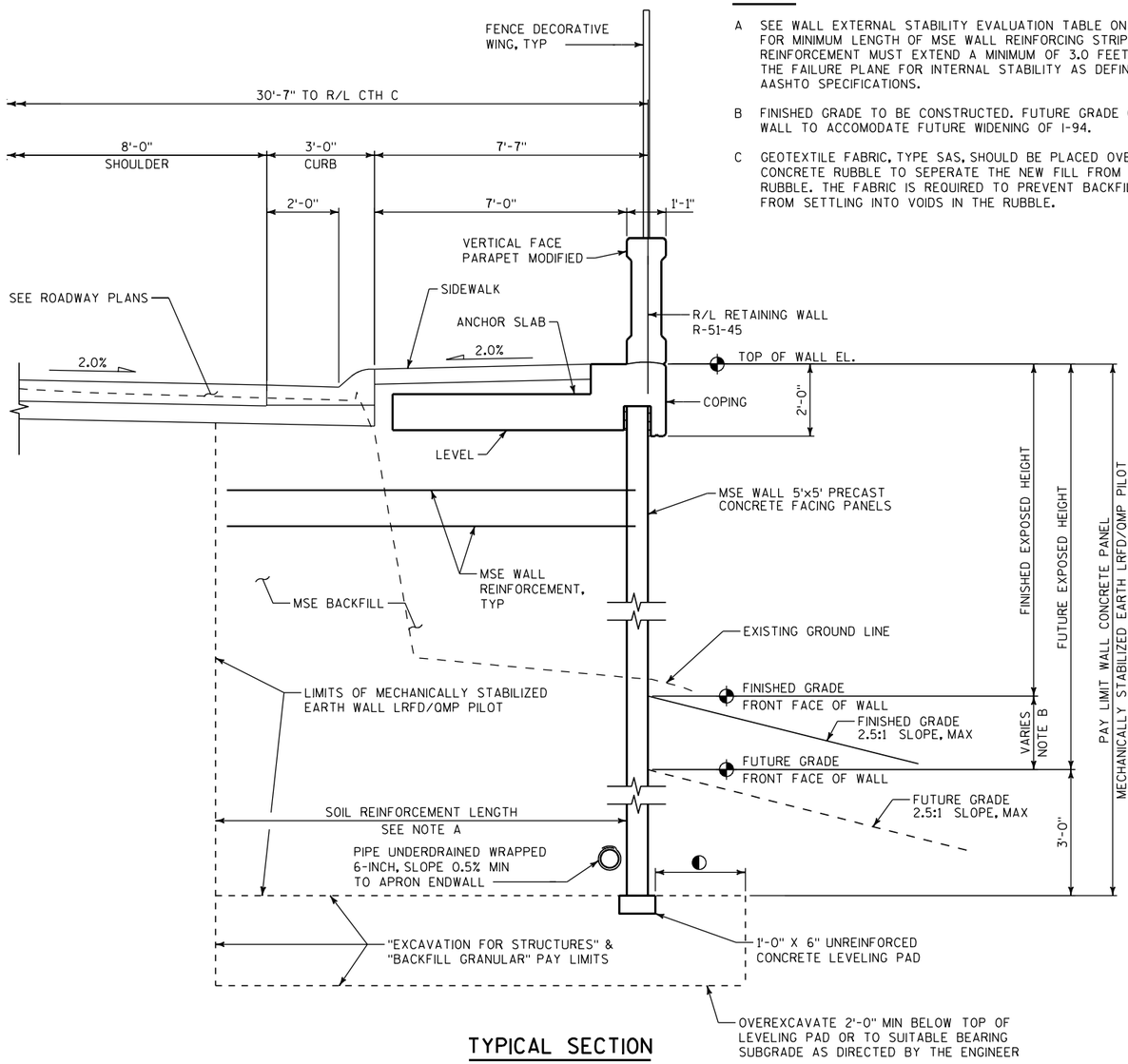
STATE PROJECT NUMBER
1033-02-72

NOTES

A SEE WALL EXTERNAL STABILITY EVALUATION TABLE ON SHEET 2 FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS.

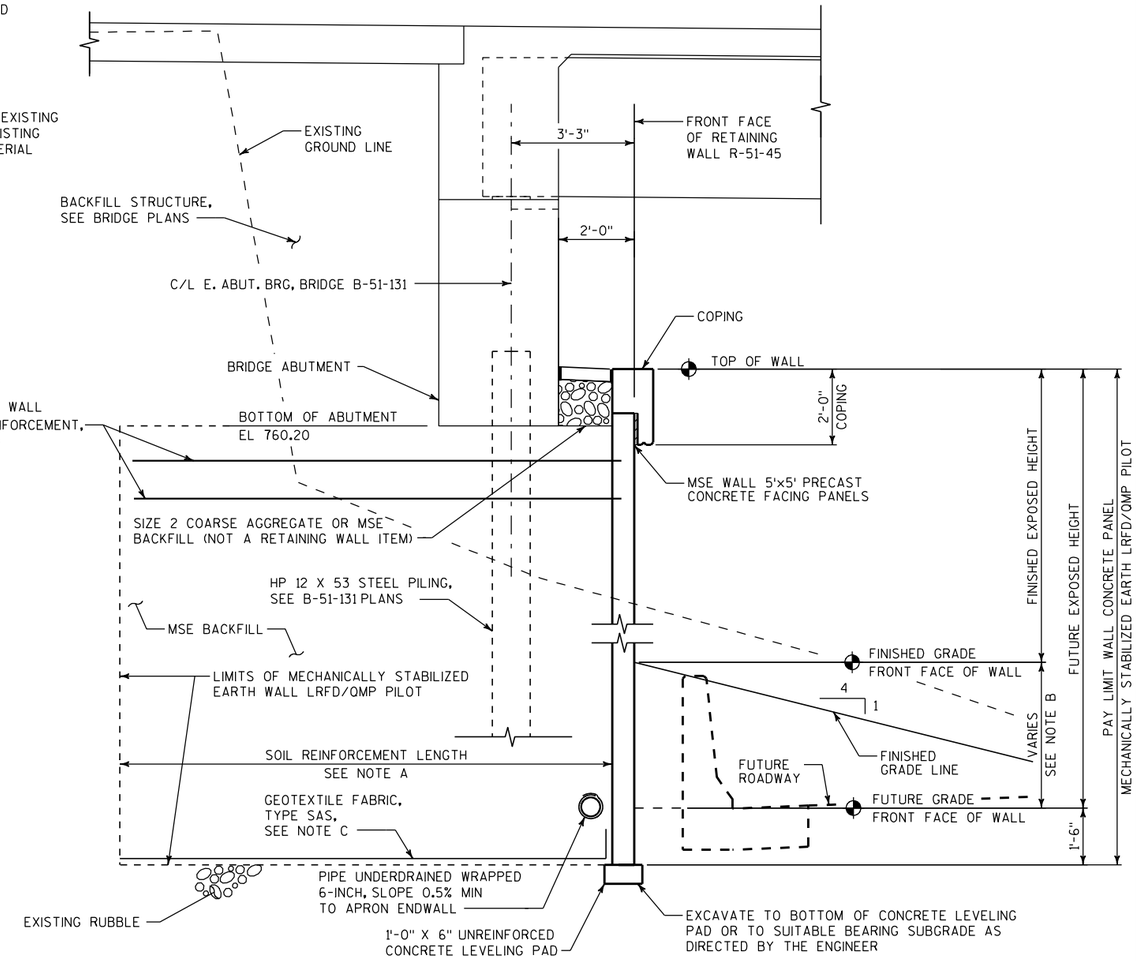
B FINISHED GRADE TO BE CONSTRUCTED. FUTURE GRADE OF WALL TO ACCOMODATE FUTURE WIDENING OF I-94.

C GEOTEXTILE FABRIC, TYPE SAS, SHOULD BE PLACED OVER THE EXISTING CONCRETE RUBBLE TO SEPERATE THE NEW FILL FROM THE EXISTING RUBBLE. THE FABRIC IS REQUIRED TO PREVENT BACKFILL MATERIAL FROM SETTLING INTO VOIDS IN THE RUBBLE.



TYPICAL SECTION

(LOOKING WEST - UNIT A)
(LOOKING EAST - UNIT C)



TYPICAL WALL SECTION AT ABUTMENT

(LOOKING SOUTH - UNIT B)

8

SEGMENT A WALL ELEVATIONS ◥

WALL STATION	TOP OF WALL EL.	FINISHED GRADE EL.	FUTURE GRADE EL.	EXISTING GROUND EL.
0+00.00	769.89	769.89	769.89	768.88
0+10.00	770.08	766.33	765.68	768.71
0+20.00	770.26	762.78	761.47	768.23
0+30.00	770.45	759.22	757.27	767.19
0+40.00	770.64	755.66	753.06	764.93
0+45.00	770.73	753.89	750.95	762.27
0+50.33	761.20	751.99	748.71	760.62

SEGMENT B WALL ELEVATIONS ◥

WALL STATION	TOP OF WALL EL.	FINISHED GRADE EL.	FUTURE GRADE EL.	EXISTING GROUND EL.
0+50.33	761.20	751.99	748.71	759.45
0+60.00	761.20	752.04	748.75	770.64
0+70.00	761.20	752.09	748.80	770.70
0+80.00	761.20	752.14	748.85	770.83
0+90.00	761.20	752.19	748.90	770.79
1+00.00	761.20	752.24	748.95	770.53
1+10.00	761.20	752.29	749.00	767.29
1+17.58	761.20	752.33	749.05	760.62

SEGMENT C WALL ELEVATIONS ◥

WALL STATION	TOP OF WALL EL.	FINISHED GRADE EL.	FUTURE GRADE EL.	EXISTING GROUND EL.
1+17.58	761.20	752.33	749.05	759.45
1+23.60	771.15	754.46	751.57	762.06
1+33.60	771.00	758.01	755.76	765.86
1+43.60	770.84	761.56	759.95	768.69
1+53.60	770.68	765.10	764.13	769.86
1+63.60	770.51	768.65	768.32	769.61
1+68.60	770.42	770.42	770.42	769.29

LEGEND

◐ OVEREXCAVATION DEPTH

◥ LINEARLY INTERPOLATE WALL ELEVATIONS BETWEEN STATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-45

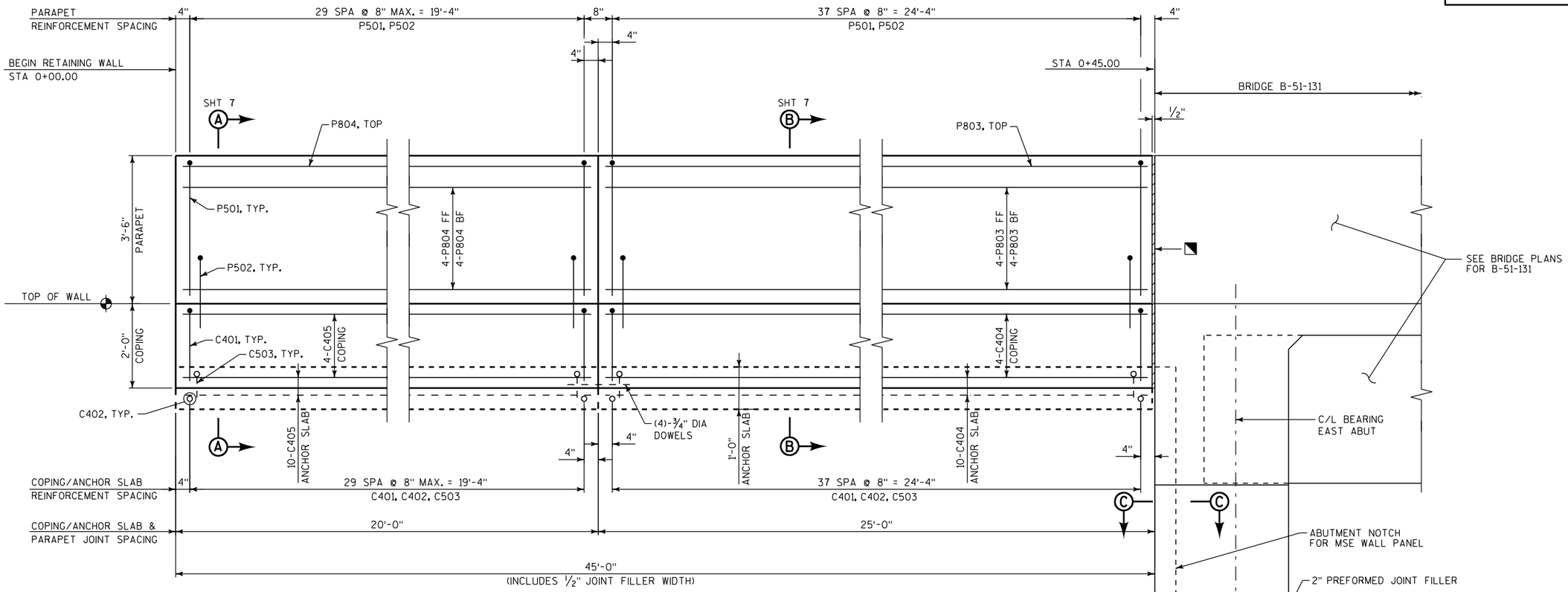
DRAWN BY TEK | PLANS CK'D. KES

TYPICAL WALL SECTIONS & ELEVATION TABLES

SHEET 3 OF 14

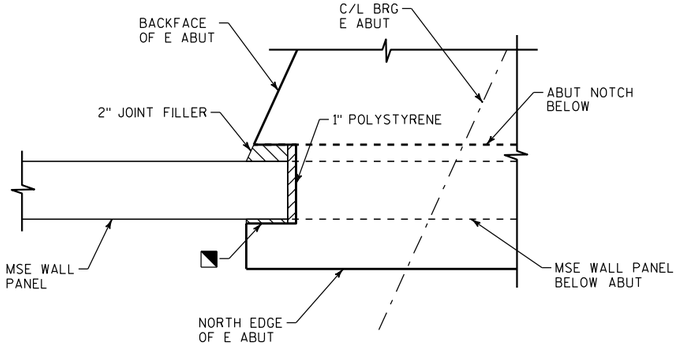
611

STATE PROJECT NUMBER
1033-02-72



ELEVATION OF COPING & PARAPET

LOOKING SOUTH AT FRONT FACE OF WALL - SEGMENT A
PARAPET RECESSES NOT SHOWN



SECTION C-C

EAST ABUT OF B-51-131 SHOWN

LEGEND

1/2" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR OF JOINT SEALER TO MATCH CONCRETE STAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-45

DRAWN BY: TEK | PLANS CK'D.: KES

SEGMENT A PARAPET & COPING ELEVATION

SHEET 4 OF 14

612

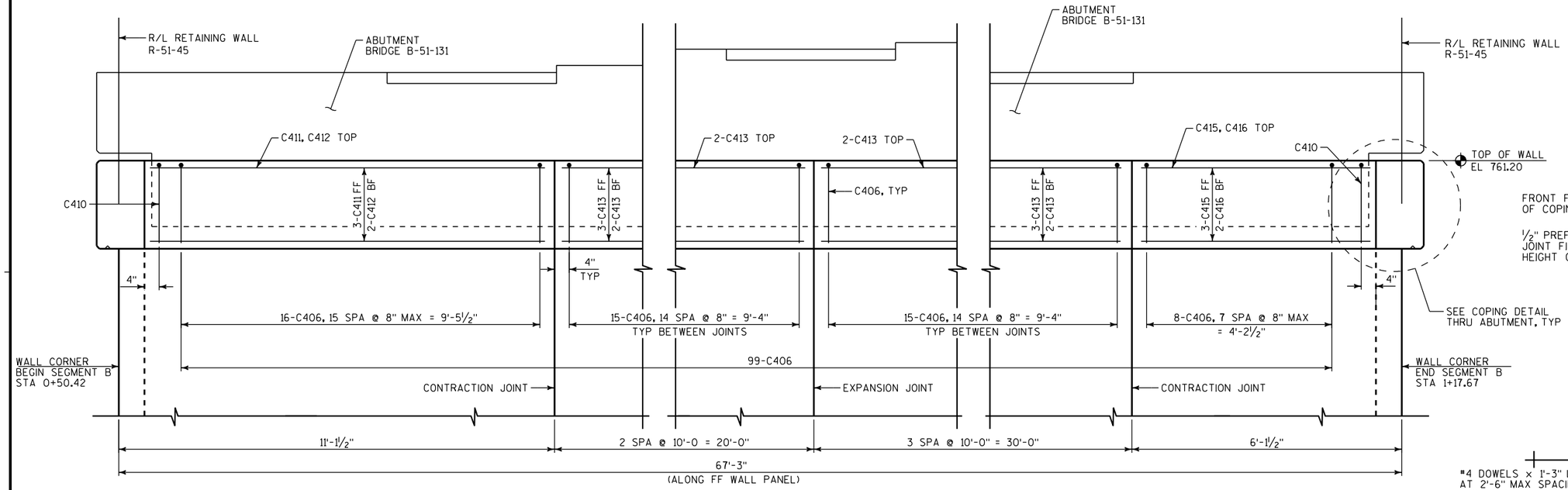
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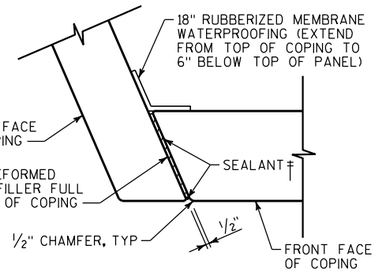
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STATE PROJECT NUMBER
1033-02-72

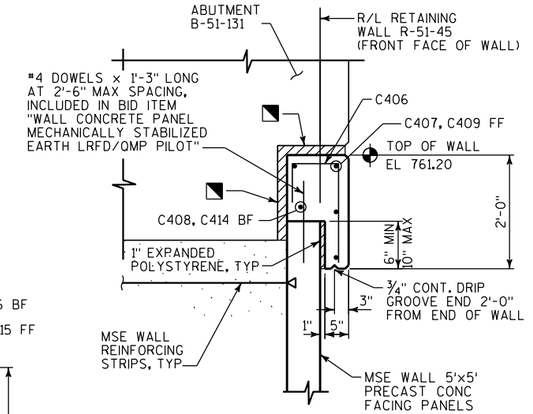
COPING ELEVATION AT ABUTMENT

LOOKING EAST AT FRONT FACE OF WALL - SEGMENT B

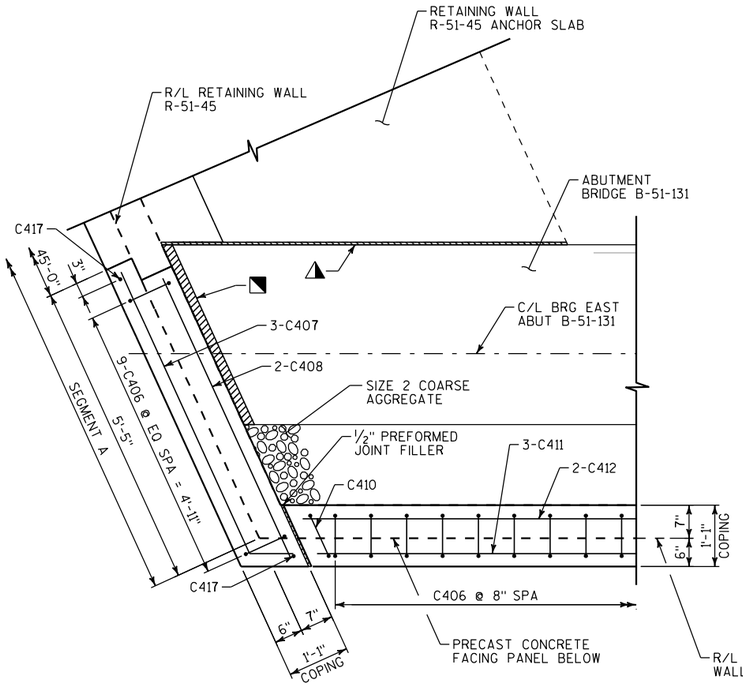




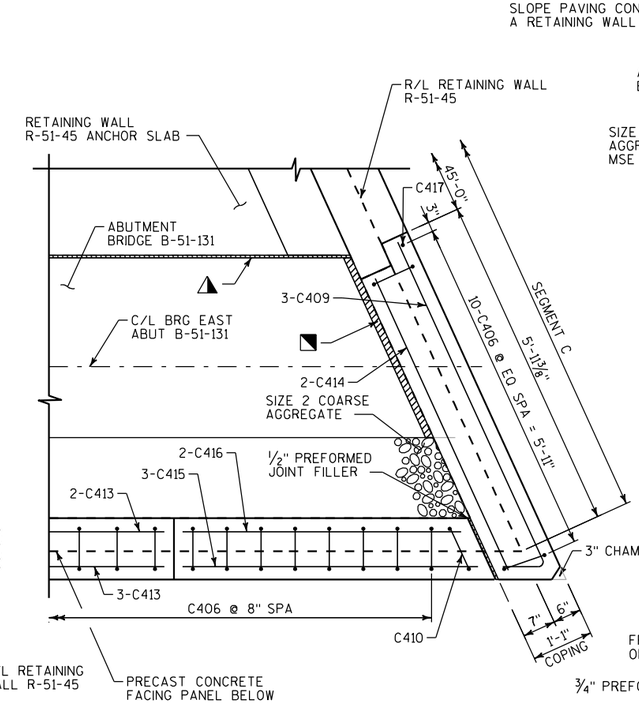
COPING EXPANSION JOINT



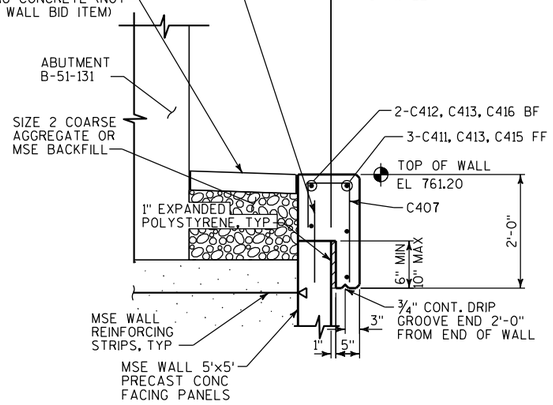
COPING DETAIL THRU ABUTMENT



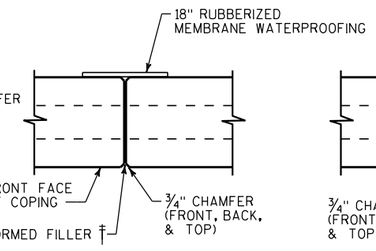
NORTH CORNER DETAIL



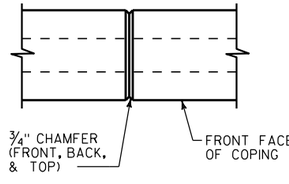
SOUTH CORNER DETAIL



COPING DETAIL AT ABUTMENT



COPING EXPANSION JOINT



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.

LEGEND

† = SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER, COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE)

■ = 2" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN.

◭ = ½" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR TO MATCH CONCRETE STAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-45

DRAWN BY TEK | PLANS CK'D. KES

SEGMENT B
COPING ELEVATION
& DETAILS

SHEET 5 OF 14

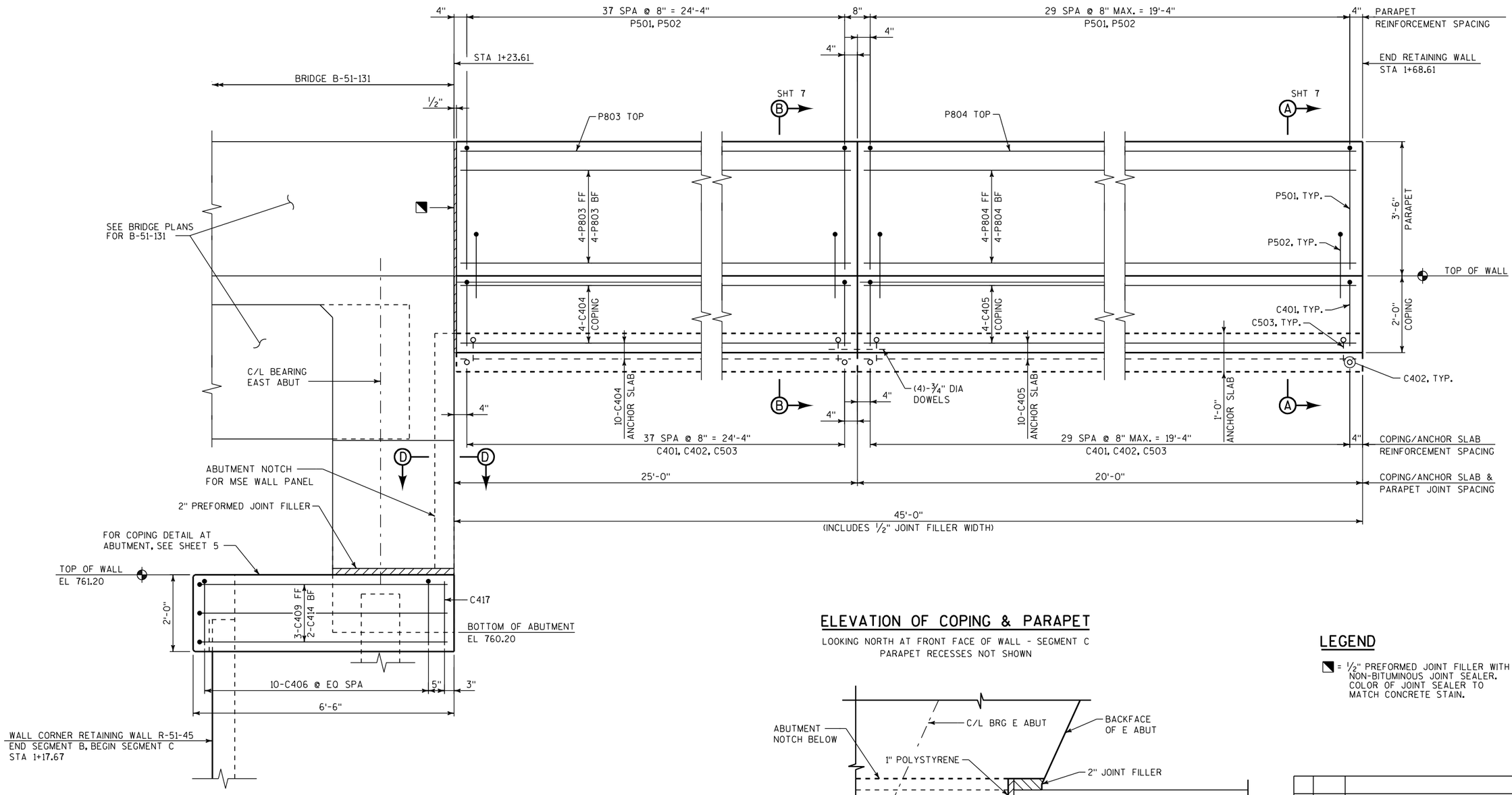
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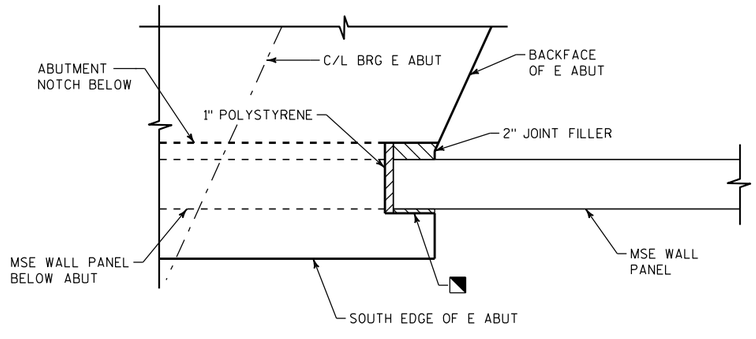
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STATE PROJECT NUMBER
1033-02-72



ELEVATION OF COPING & PARAPET

LOOKING NORTH AT FRONT FACE OF WALL - SEGMENT C
PARAPET RECESSES NOT SHOWN



SECTION D-D

EAST ABUT OF B-51-131 SHOWN

LEGEND

= 1/2" PREFORMED JOINT FILLER WITH NON-BITUMINOUS JOINT SEALER. COLOR OF JOINT SEALER TO MATCH CONCRETE STAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-45

DRAWN BY: TEK | PLANS CK'D.: KES

SEGMENT C
PARAPET &
COPING ELEVATION

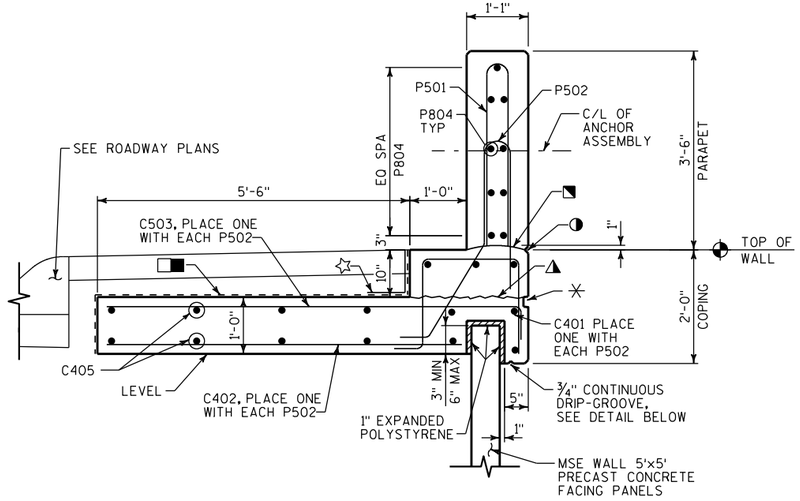
SHEET 6 OF 14

614

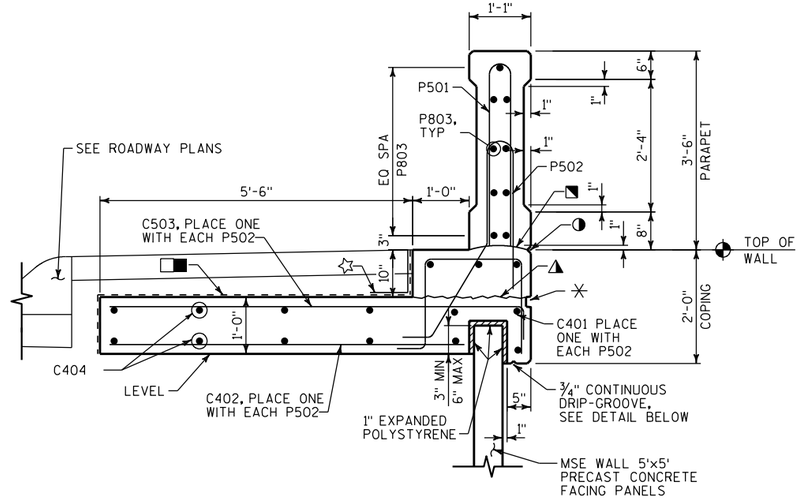
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8

STATE PROJECT NUMBER
1033-02-72



SECTION A-A



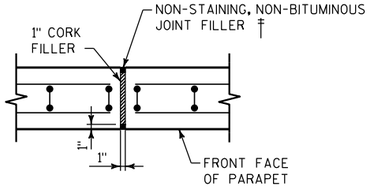
SECTION B-B

LEGEND

- CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH
- OPTIONAL CONSTRUCTION JOINT, LEAVE SURFACE ROUGHENED
- IF THE OPTIONAL CONSTRUCTION JOINT IS USED, PLACE 18" RUBBERIZED MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT. IF USED, THE RUBBERIZED MEMBRANE WATERPROOFING IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY RETAINING WALLS".
- PROVIDE RUSTICATION IF OPTIONAL CONSTRUCTION JOINT IS USED.
- 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACE AT EACH EXPANSION JOINT IN ANCHOR SLAB.
- † SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER, COLOR TO MATCH CONCRETE STAIN. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE)
- 3/4" V-GROOVE, SEE DETAIL

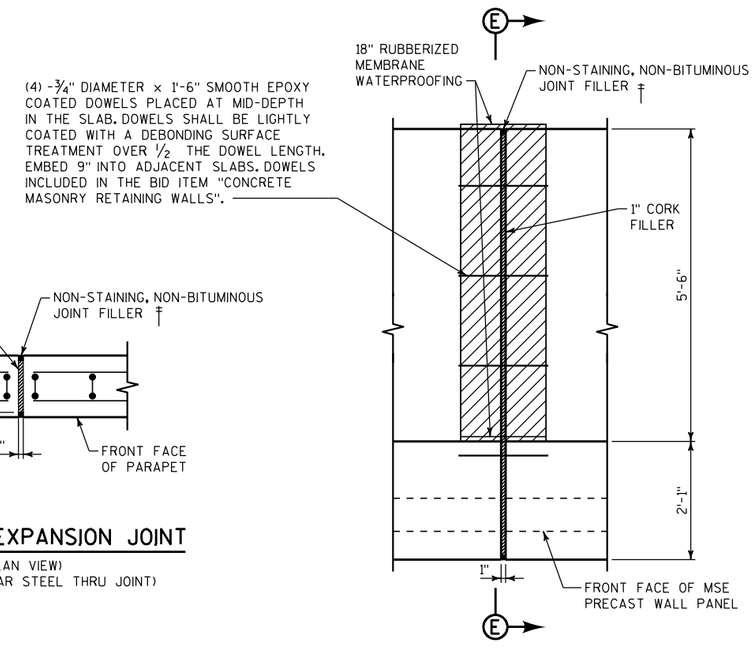
NOTE

SEE GENERAL PLAN & ELEVATION SHEET FOR LOCATION OF EXPANSION JOINTS.



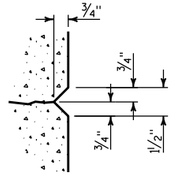
PARAPET EXPANSION JOINT

(PLAN VIEW)
(DO NOT RUN BAR STEEL THRU JOINT)

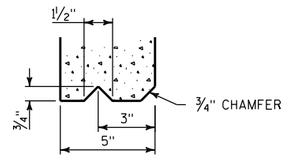


ANCHOR SLAB EXPANSION JOINT

(PLAN VIEW)
(ANCHOR SLAB REINFORCING NOT SHOWN)

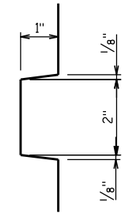


3/4" V-GROOVE DETAIL

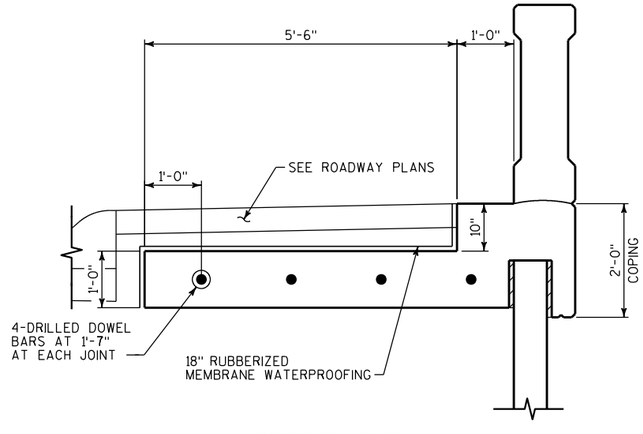


3/4" CONTINUOUS DRIP GROOVE DETAIL

TERMINATE 2'-0" FROM END OF WALL



RUSTICATION DETAIL



SECTION E-E
(AT ANCHOR SLAB EXPANSION JOINT)

(ANCHOR SLAB AND PARAPET REINFORCING NOT SHOWN)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-45

DRAWN BY TEK | PLANS CK'D. KES

PARAPET, ANCHOR SLAB & COPING DETAILS

SHEET 7 OF 14

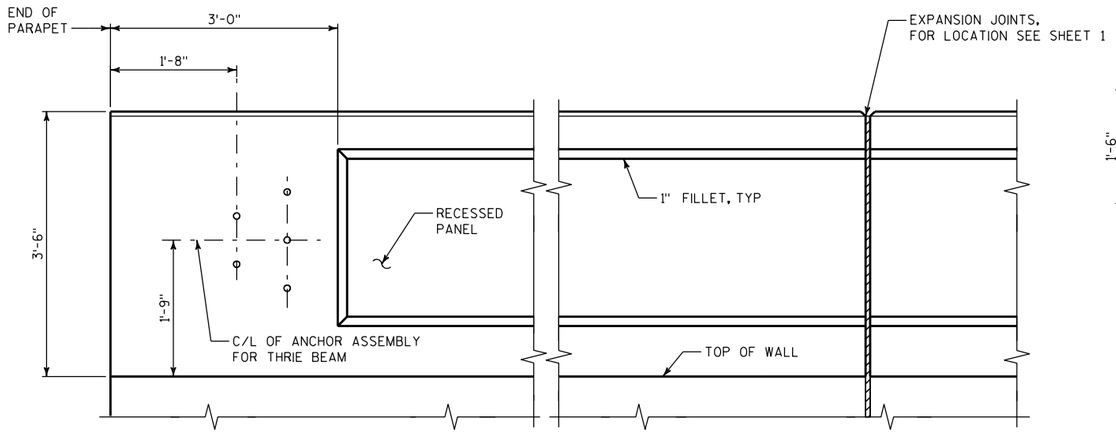
615

8

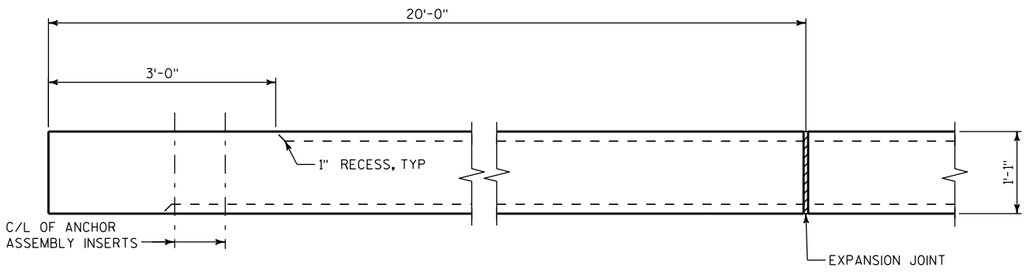
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STATE PROJECT NUMBER

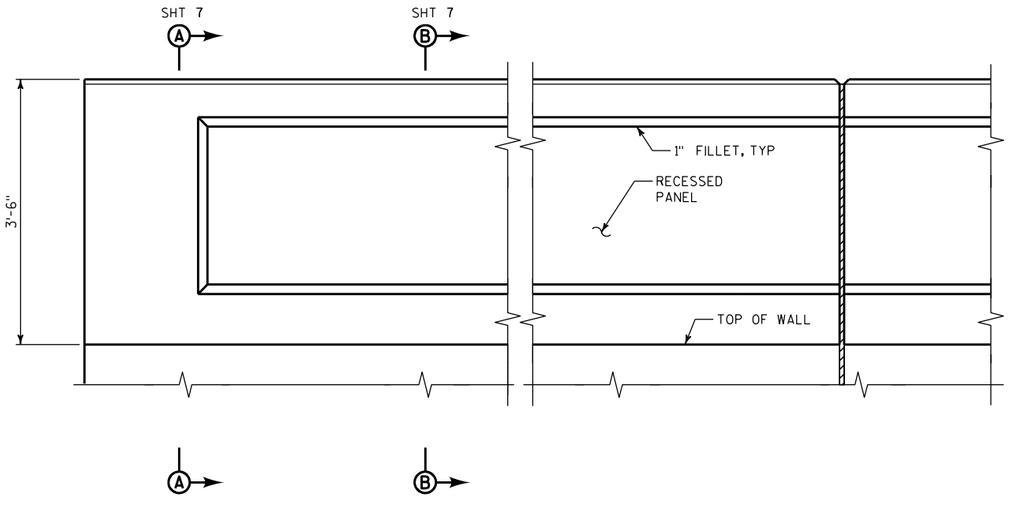
1033-02-72



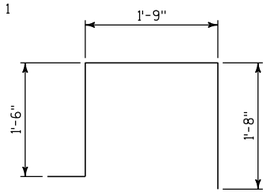
INSIDE ELEVATION



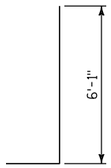
PLAN



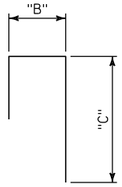
OUTSIDE ELEVATION



C401

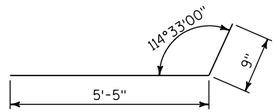


C503

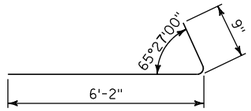


C406, C410

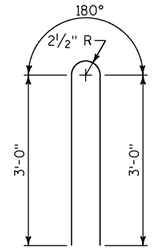
BAR MARK	DIM. "B"	DIM. "C"
C409	0'-9"	1'-8"
C410	0'-10"	1'-8"



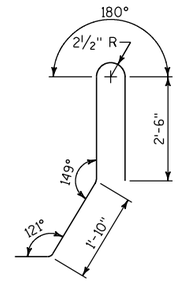
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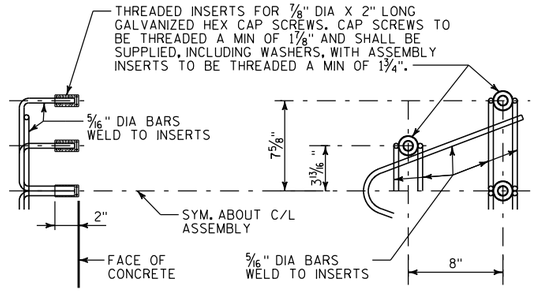
C409



P501



P502



DETAIL OF ANCHOR ASSEMBLY

ANCHOR SLAB & COPING BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
C401	E	136	5'-4"	X	COPING TRANSVERSE TIE
C402	E	136	6'-1"		ANCHOR SLAB BOTTOM TRANSVERSE
C503	E	136	6'-7"	X	ANCHOR SLAB TOP TRANSVERSE
C404	E	28	24'-8"		ANCHOR SLAB LONGITUDINAL - 25FT SEGMENT
C405	E	28	19'-8"		ANCHOR SLAB LONGITUDINAL - 20FT SEGMENT
C406	E	118	3'-0"	X	COPING AT ABUTMENT TIE
C407	E	3	6'-2"	X	COPING THRU ABUTMENT LONGITUDINAL FF
C408	E	2	5'-3"		COPING THRU ABUTMENT LONGITUDINAL BF
C409	E	3	6'-10"	X	COPING THRU ABUTMENT LONGITUDINAL FF
C410	E	2	3'-1"	X	COPING AT ABUTMENT TIE
C411	E	3	9'-11"		COPING AT ABUTMENT LONGITUDINAL
C412	E	1	10'-2"		COPING AT ABUTMENT LONGITUDINAL
C413	E	25	9'-8"		COPING AT ABUTMENT LONGITUDINAL
C414	E	2	5'-5"		COPING THRU ABUTMENT LONGITUDINAL BF
C415	E	3	5'-2"		COPING AT ABUTMENT LONGITUDINAL
C416	E	1	4'-11"		COPING AT ABUTMENT LONGITUDINAL
C417	E	3	1'-8"		COPING THRU ABUTMENT VERTICAL

◑ FOR INFORMATION ONLY. THESE BARS ARE INLCUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP PILOT"

PARAPET BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
P501	E	136	6'-9"	X	PARAPET VERTICAL TIE
P502	E	136	8'-2"	X	PARAPET VERTICAL TIE
P803	E	18	24'-8"		PARAPET LONGITUDINAL - 25FT SEGMENT
P804	E	18	19'-8"		PARAPET LONGITUDINAL - 20FT SEGMENT

NOTE

SEE SHEETS 4, 6, AND 7 FOR REINFORCING IN PARAPETS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-45

DRAWN BY: TEK | PLANS CK'D.: KES

VERTICAL FACE PARAPET MODIFIED

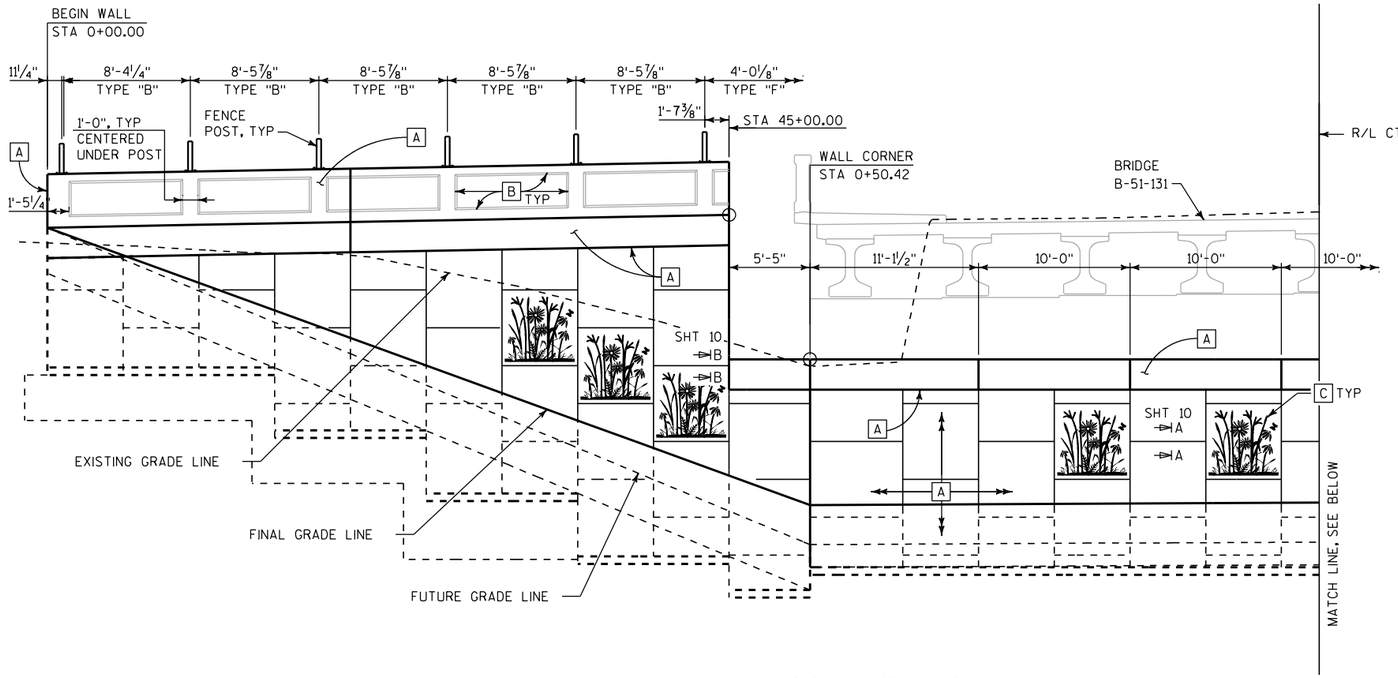
SHEET 8 OF 14

616

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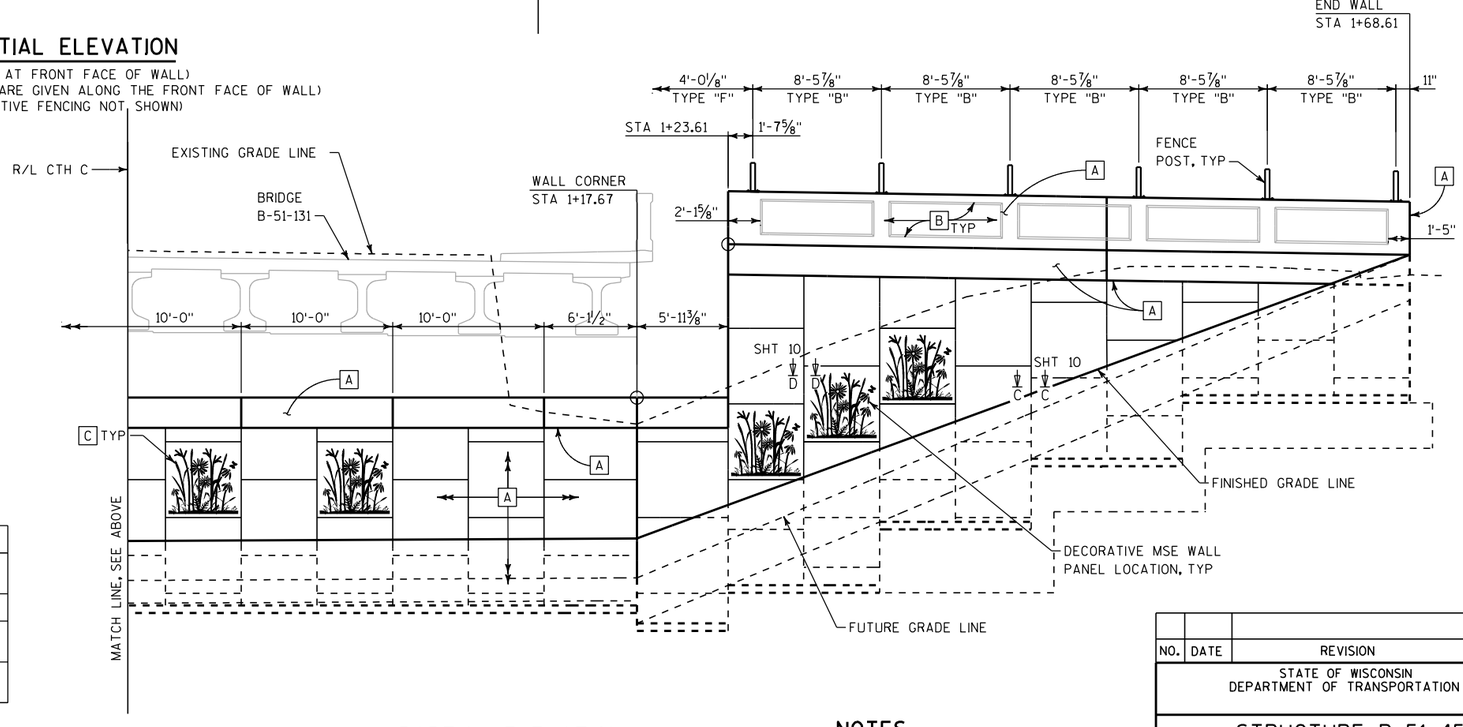
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STATE PROJECT NUMBER
1033-02-72



PARTIAL ELEVATION

(LOOKING AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG THE FRONT FACE OF WALL)
(DECORATIVE FENCING NOT SHOWN)



PARTIAL ELEVATION

(LOOKING AT FRONT FACE OF WALL)
(DISTANCES AND STATIONS ARE GIVEN ALONG THE FRONT FACE OF WALL)
(DECORATIVE FENCING NOT SHOWN)

CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION	NOTES
A	BASE COLOR	VERTICAL FACE PARAPET	BOTH SIDES, EXCEPT AS NOTED FOR ACCENT COLORS
		WALLS	EXPOSED FACES TO 1'-0" BELOW FINAL GRADE
B	ACCENT COLOR #1	VERTICAL FACE PARAPET	RECESSED PANELS ON BOTH SIDES, INCLUDING FILLETS
C	ACCENT COLOR #2	DECORATIVE PANEL	RECESSED AREAS

STAIN COLORS

THE FINAL COLOR OF THE CONCRETE FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW:

BASE COLOR : 33564
ACCENT COLOR #1: 33448
ACCENT COLOR #2: 20170

NOTES

SEE FENCE DECORATIVE WALL SHEETS FOR FENCING DETAILS.

DO NOT STAIN TOP OF PARAPETS OR TOP OF COPING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-45

DRAWN BY TEK | PLANS CK'D. KES

AESTHETIC WALL ELEVATION

SHEET 9 OF 14

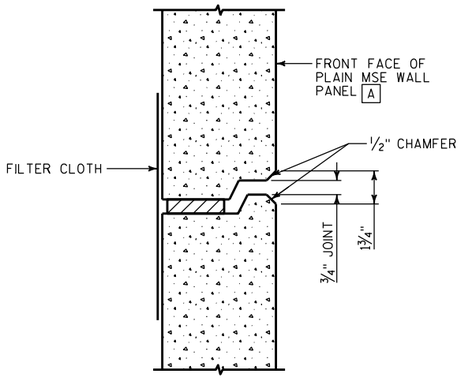
617

8

8

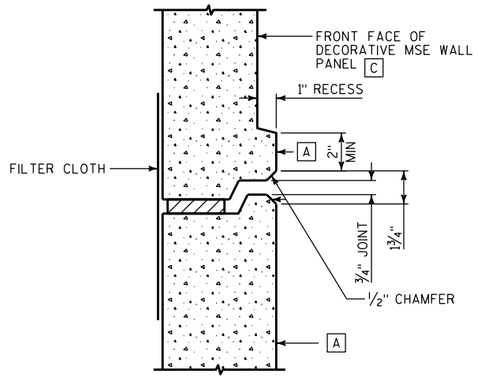
STATE PROJECT NUMBER

1033-02-72



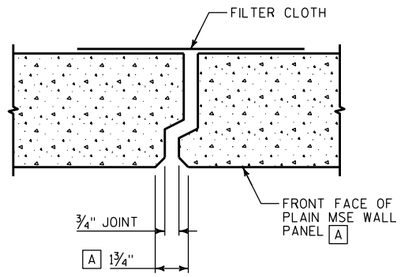
SECTION A-A

HORIZONTAL JOINT @ MSE WALL PANELS



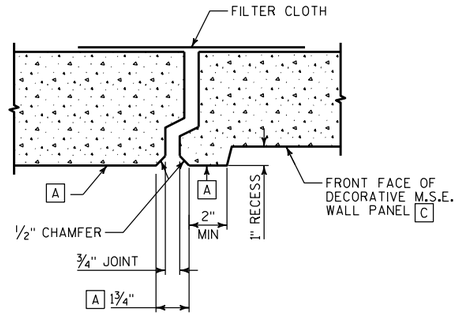
SECTION B-B

HORIZONTAL JOINT @ MSE WALL PANELS



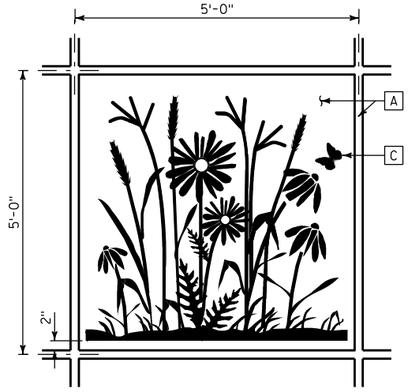
SECTION C-C

VERTICAL JOINT @ MSE WALL PANELS



SECTION D-D

VERTICAL JOINT @ MSE WALL PANELS



DECORATIVE MSE PANEL

"PRAIRIE PATTERN"

NOTE

SEE AESTHETIC WALL ELEVATION ON SHEET 9 FOR CONCRETE STAINING SCHEDULE AND SECTION LOCATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-45

DRAWN BY TEK | PLANS CK'D. KES

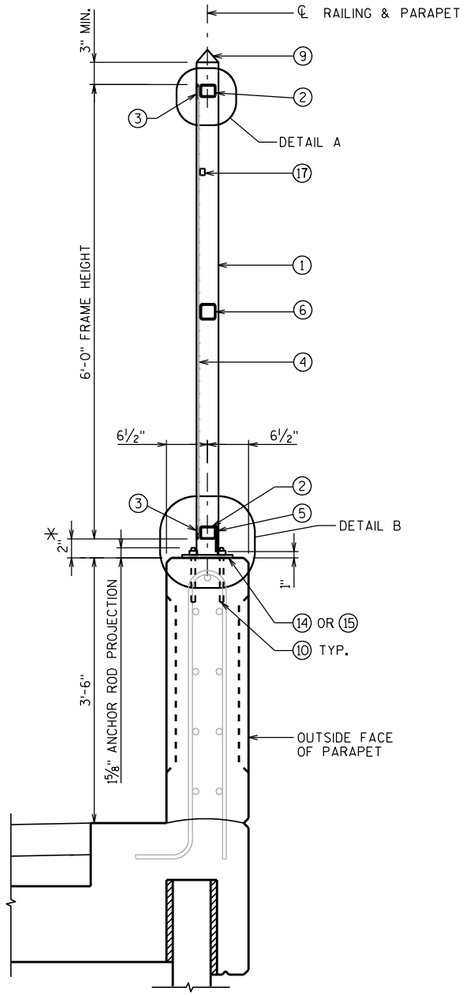
AESTHETIC WALL TREATMENT DETAILS

SHEET 10 OF 14

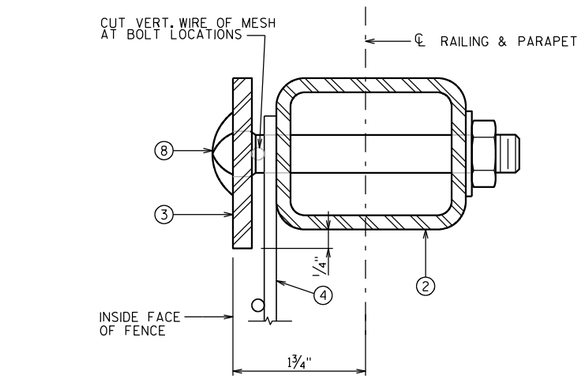
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8

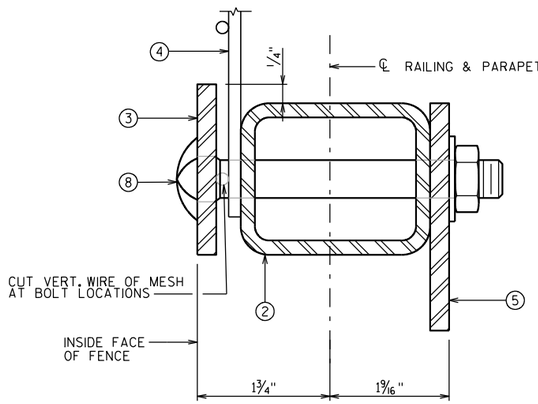
8



SECTION THRU VERTICAL FACE PARAPET



DETAIL A



DETAIL B

LEGEND

1. HSS 3½ X 3½ X 3⁄16 POST WITH ¼" DIA. VENT HOLES TOP & BOTTOM ON OUTSIDE FACE. RESIZE AS NECESSARY FOR GALVANIZING PROCESS. WELD TO NO. 9 & BASE PLATE, TYP.
2. HSS 2½ X 2 X 3⁄16. WELD TO NO. 6, 7 & 17.
3. PL 2¼" X ¼" WELDED FRAME. BOLT TO NO. 2 WITH NO. 8 AFTER PAINTING.
4. STEEL MESH 2" X 2" X 0.162 (8 GA.). PLACE VERTICAL WIRES ON INSIDE FACE OF PARAPET.
5. PL ¼" X WIDTH VARIES. PROVIDE SHORT SLOTTED VERT. HOLES FOR NO. 8.
6. HSS 2½" X 2½" X 3⁄16. WELD TO NO. 2, 6, 7, 18 & 19.
7. ¾" × ¾" BAR. WELD TO NO. 2, 6, 17, 18 & 19.
8. ½" DIA. CARRIAGE BOLT, WASHER AND NUT. PROVIDE ⅝" X ⅝" SQUARE HOLE IN NO. 3 & NO. 2 OF PANEL TYPE G ONLY FOR SQUARE PORTION OF THE BOLT HEAD.
9. 3½" X 3½" PYRAMIDAL CAP. WELD TO NO. 1.
10. ⅝" DIA. CONCRETE MASONRY ANCHOR TYPE S EPOXY, 7" MINIMUM EMBEDMENT WITH A MINIMUM PULLOUT OF 20 KIPS.
11. PL 5⁄16" X 4½" X 0'-6" CONNECTION WITH 2" DIA. HOLES FOR NO. 8. USE NO. 12 TO COVER 2" DIA. ADJUSTMENT HOLES. USE STANDARD HOLES ON CANTILEVERED FENCE PANEL AT ABUTMENTS.
12. PL ⅜" X 2" X 4½".
13. PL WASHER ¼" X 3½" X 3½".
14. PL ½" X 8" X 10" BASE PLATE. WELD TO NO. 1.
15. PL ½" X 8" X 1'-0" BASE PLATE. WELD TO NO. 1.
16. ½" DIA. BOLT, WASHER & NUT. TACK WELD NUT TO NO. 2.
17. ¾" X ¾" CURVED BAR. WELD TO NO. 2, 7, 18 & 19.
18. ¾" PLATE. WELD TO NO. 6, 7 & 17.
19. ¾" PLATE. WELD TO NO. 6 & 17.

✳ THE DIMENSION BETWEEN THE BOTTOM OF THE WELDED FRAME AND THE TOP OF THE PARAPET VARIES DUE TO THE VERTICAL PROFILE OF THE STRUCTURE. SET THIS DIMENSION TO 3" ADJACENT TO THE POST WHERE NO. 5 HAS THE SMALLEST VERTICAL DIMENSION.

NOTES

THE BID ITEM SHALL BE "FENCE DECORATIVE WALL" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

STRUCTURAL TUBING SHALL BE A.S.T.M. A500, GRADE B. ROLLED SHAPES, PLATES, BARS AND SHIMS SHALL BE A.S.T.M. A709, GRADE 36.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE POST VERTICAL.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE A.S.T.M. A307 AND SHALL BE GALVANIZED.

STANDARD WASHERS SHALL BE USED TO SHIM BASE PLATES IF REQUIRED. ALL WASHERS SHALL BE GALVANIZED.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

AFTER FABRICATION AND PRIOR TO BOLTING AND ASSEMBLING FENCE COMPONENTS, STEEL SHALL BE BLAST CLEANED PER SSPC-SP 6 AND GALVANIZED ACCORDING TO ASTM A 123. REPAIR ZINC COATING DAMAGED DURING FABRICATION AS SPECIFIED IN 635.3.4.

ALL WELDS SHALL BE PREQUALIFIED ACCORDING TO THE STRUCTURAL WELDING CODE STEEL (AWS D1.1). THE MINIMUM SIZE OF FILLET WELDS IS 3⁄16".

COVER THE 2" X 2" STEEL MESH WITH A COLORED POLYMER COATING. COAT ALL OTHER FENCING COMPONENTS WITH AN EPOXY PAINT SYSTEM. TOUCH UP DAMAGED PORTIONS OF PAINT AFTER PANEL ERECTION. SEE SPECIAL PROVISIONS FOR REQUIREMENTS.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-45

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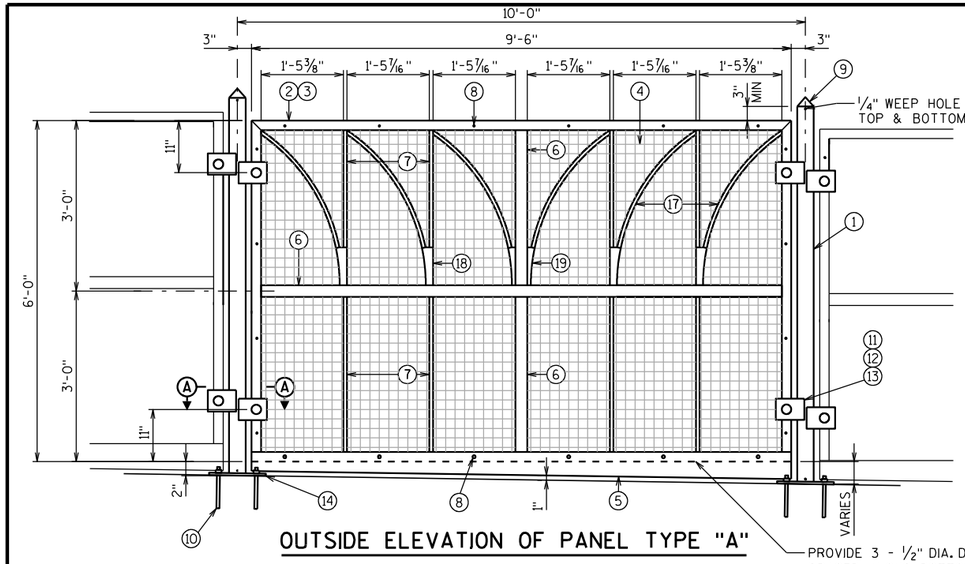
FENCE DECORTAIVE WALL (1 OF 4)

SHEET 11 OF 14

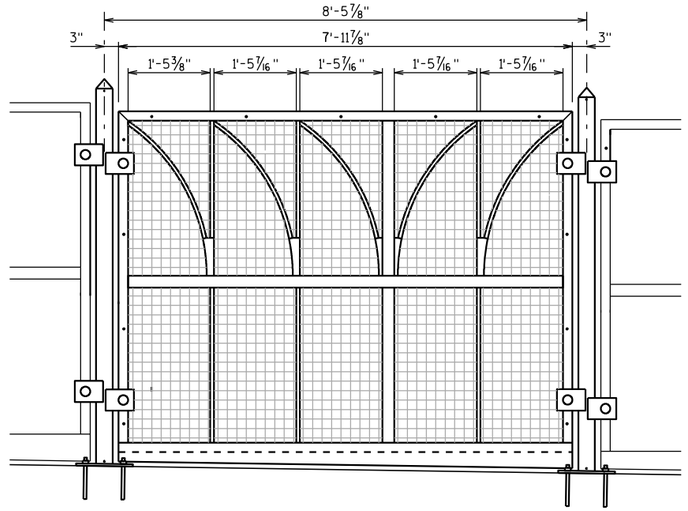
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STATE PROJECT NUMBER

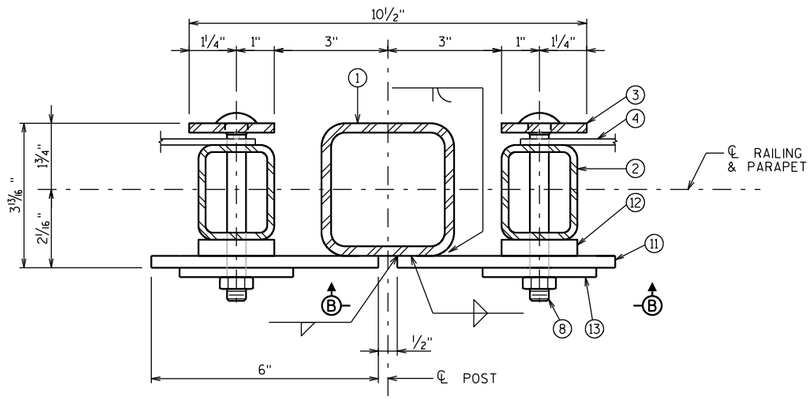
1033-02-72



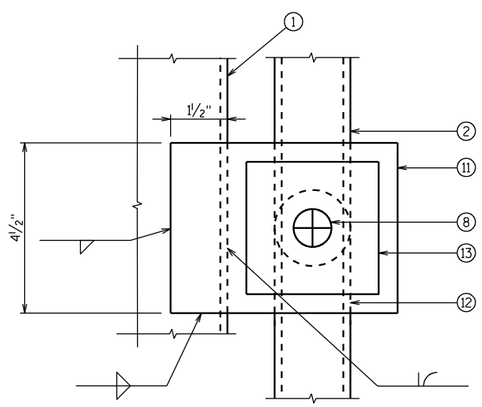
OUTSIDE ELEVATION OF PANEL TYPE "A"



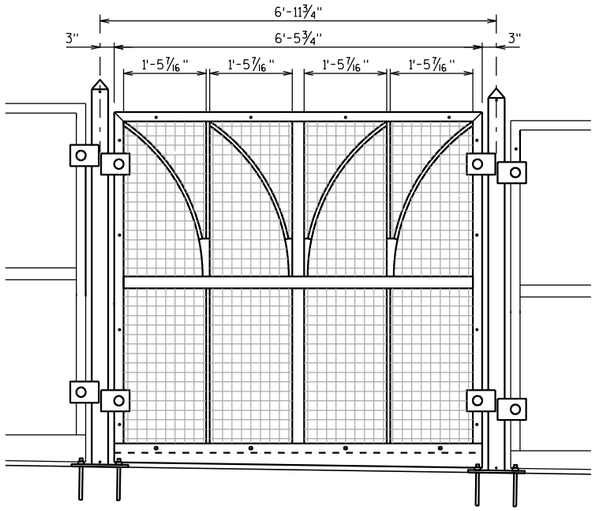
OUTSIDE ELEVATION OF PANEL TYPE "B"



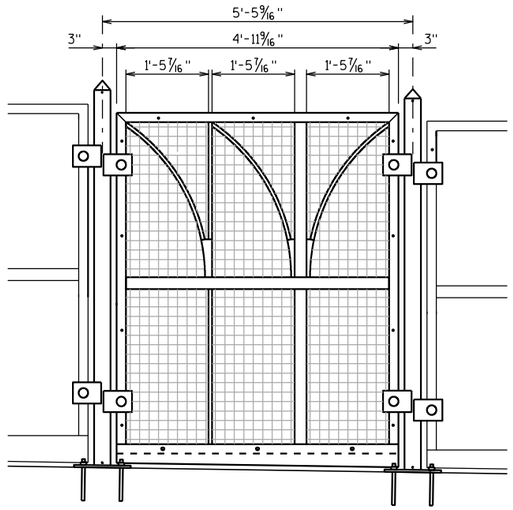
SECTION A-A



ELEVATION B-B



OUTSIDE ELEVATION OF PANEL TYPE "C"



OUTSIDE ELEVATION OF PANEL TYPE "D"

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DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-45

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FENCE DECORATIVE WALL (2 OF 4)

SHEET 12 OF 14

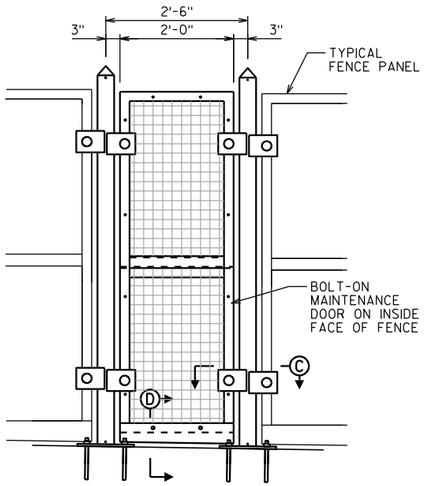
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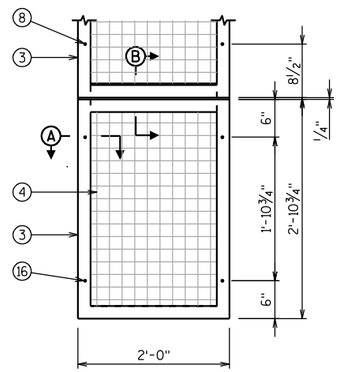
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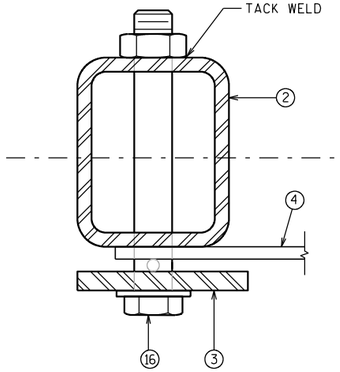


OUTSIDE ELEVATION OF PANEL TYPE "G"

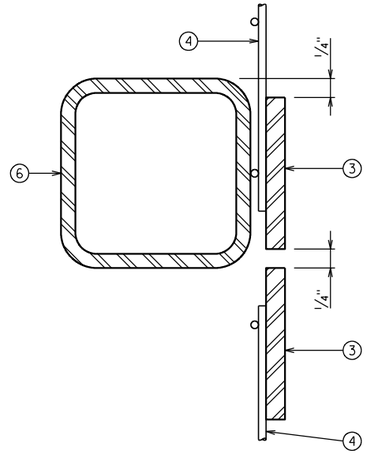


MAINTENANCE DOOR DETAIL

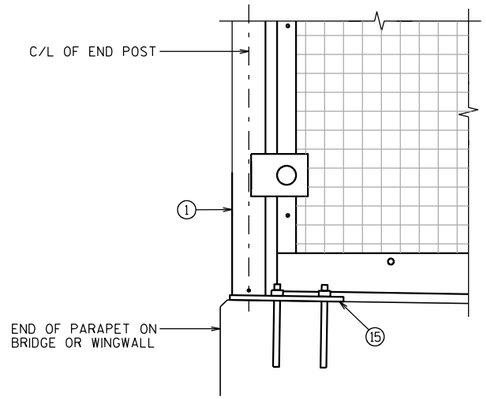
INSIDE ELEVATION



SECTION A-A

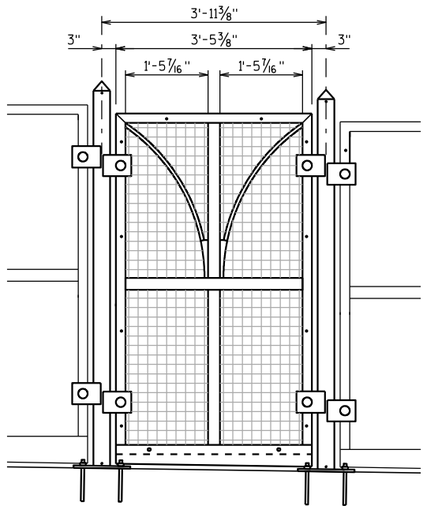


SECTION B-B

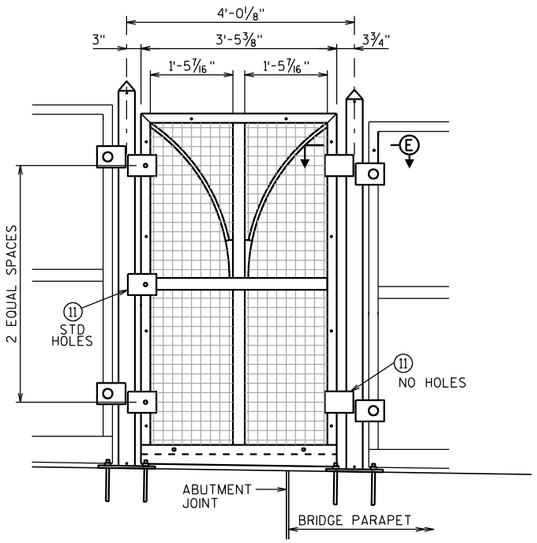


END POST DETAIL

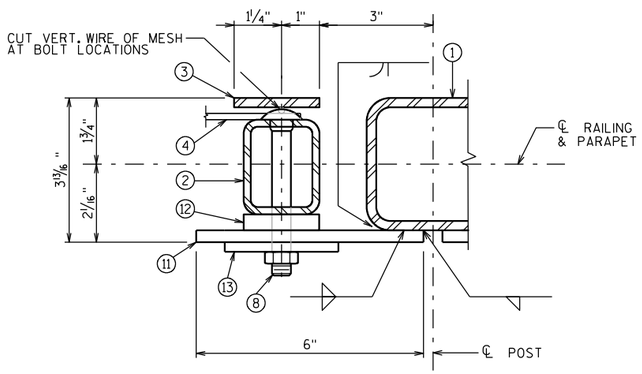
(SEE DECK PLAN FOR LOCATIONS)



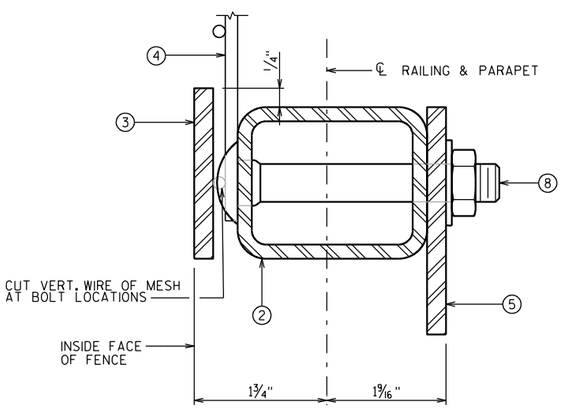
OUTSIDE ELEVATION OF PANEL TYPE "E"



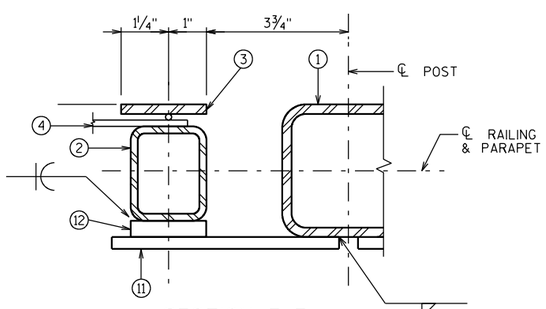
OUTSIDE ELEVATION OF PANEL TYPE "F"



SECTION C-C



SECTION D-D



SECTION E-E

NOTES

FOR NOTES AND LEGEND, SEE SHEET 11.

FOR TYPICAL MATERIALS, MEMBER SIZES, WELDING AND BOLTING DETAILS, SEE "OUTSIDE ELEVATION OF PANEL TYPE A" ON SHEET 12

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-45

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FENCE DECORATIVE WALL (3 OF 4)

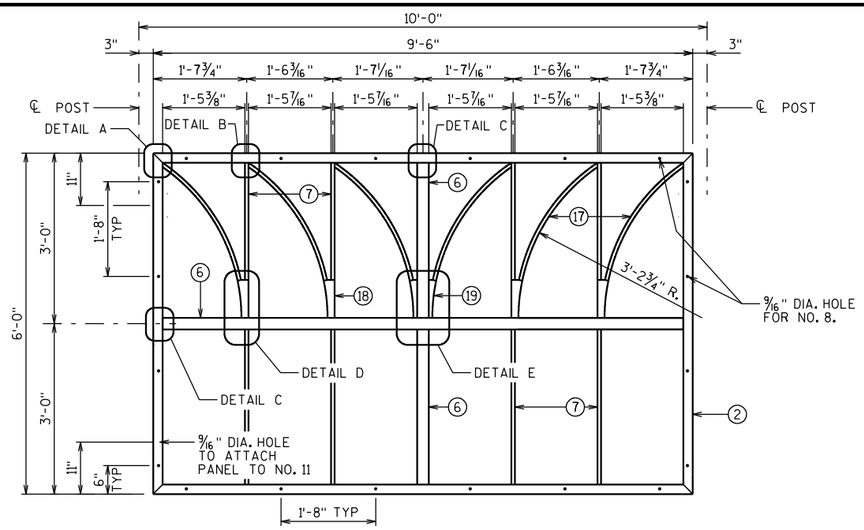
SHEET 13 OF 14

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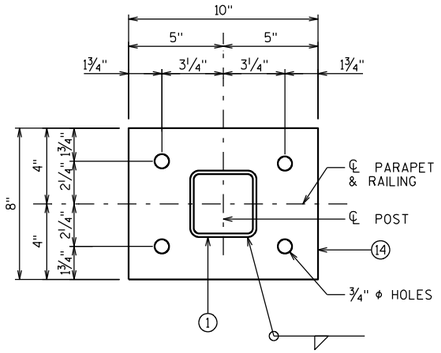
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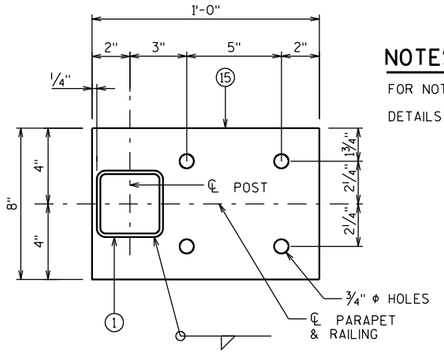


DECORATIVE FENCE WING PANEL

TYPICAL 10' PANEL SHOWN



BASE PLATE



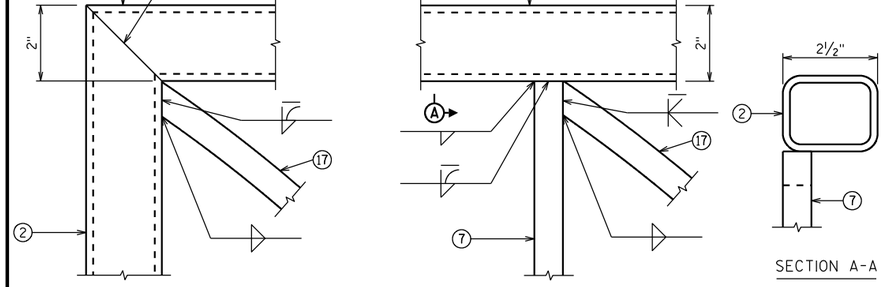
END BASE PLATE

VERTICAL FACE PARAPET BASE PLATE DETAILS

NOTES

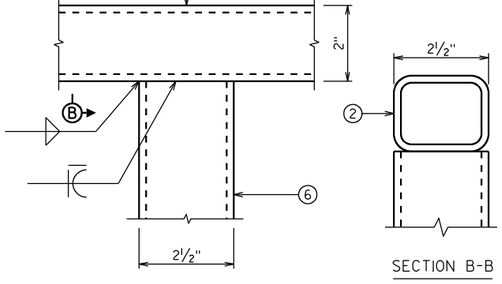
FOR NOTES AND LEGEND, SEE SHEET 11.

DETAILS SHOWN ARE TYPICAL FOR ALL WALL PANELS.

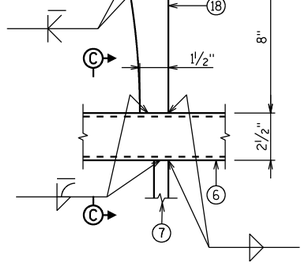


DETAIL A

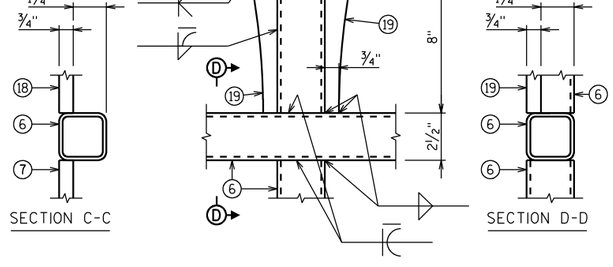
DETAIL B



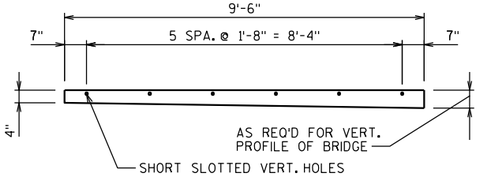
DETAIL C



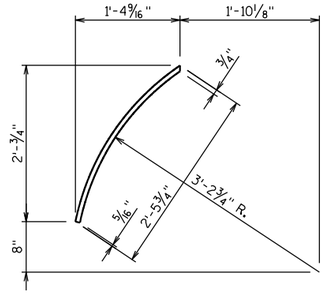
DETAIL D



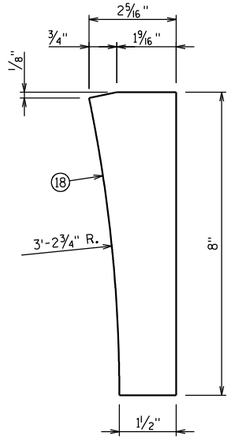
DETAIL E



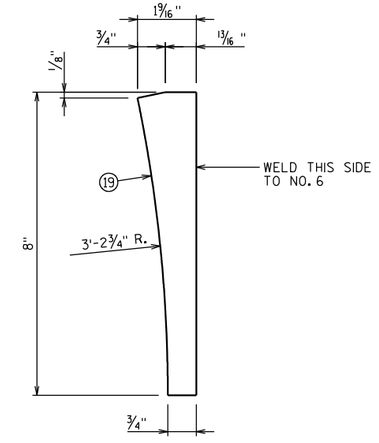
¼" PLATE (NO. 5)



¾" X ¾" CURVED BAR (NO. 17)



¾" PLATE (NO. 18)



¾" PLATE (NO. 19)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-51-45

DRAWN BY TEK | PLANS CK'D. KES

FENCE DECORATIVE WALL (4 OF 4)

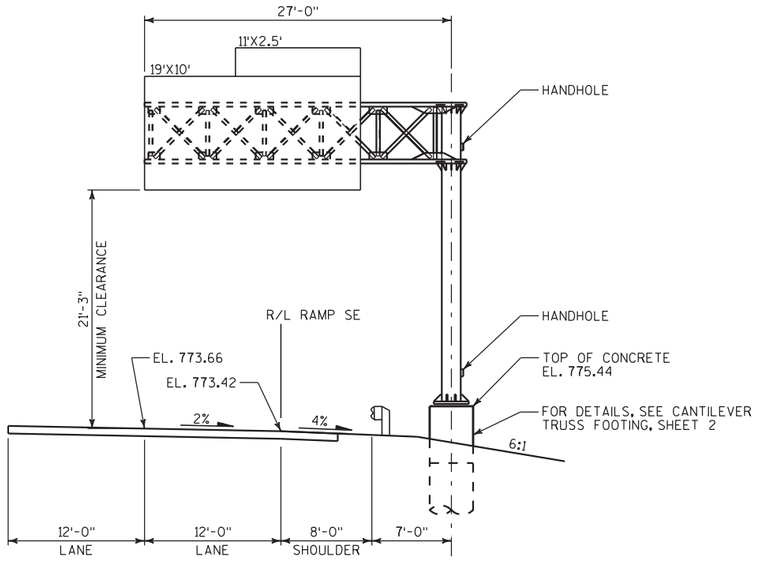
SHEET 14 OF 14

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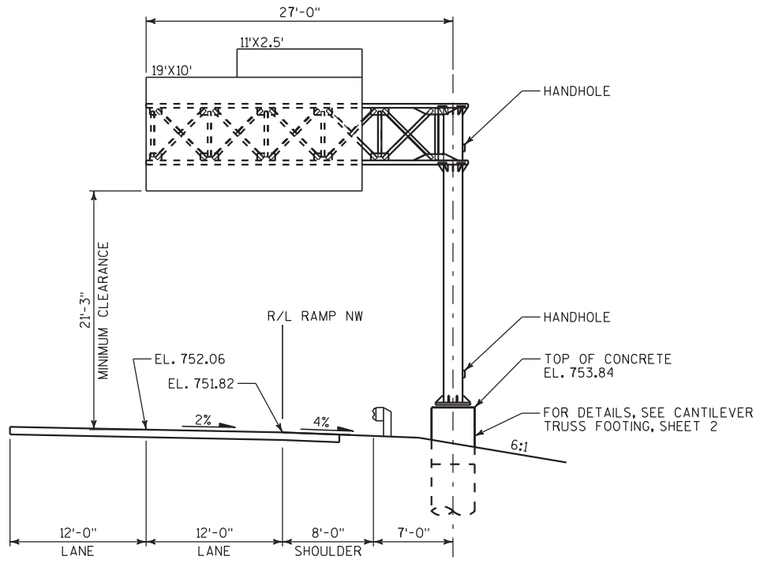
8

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ELEVATION

(LOOKING NORTH AT FRONT FACE OF SIGNS)
S-51-27
IH 94 NB @ STH 20
STA. 838SE+15.00



ELEVATION

(LOOKING SOUTH AT FRONT FACE OF SIGNS)
S-51-28
IH 94 SB @ STH 20
STA. 884NW+60.00

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL REINFORCING BARS ARE ENGLISH. THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

CONTRACTOR SHALL VERIFY DIMENSIONS BEFORE FABRICATION OF STEEL COLUMNS.

SIGN BRIDGE IDENTIFICATION PLAQUES SHALL BE CONSIDERED INCIDENTAL TO SIGN BRIDGES.

CENTER SIGNS VERTICALLY ON TRUSS.

ELEVATIONS ARE IN FEET UNLESS OTHERWISE SHOWN OR NOTED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

LIST OF DRAWINGS

1. SIGN BRIDGE LAYOUT
2. CANTILEVER TRUSS FOOTING
3. GALVANIZED STEEL CANTILEVER SIGN TRUSS
4. GALVANIZED STEEL CANTILEVER SIGN TRUSS DETAILS
5. HANDHOLE DETAILS

ALLOWABLE DESIGN STRESSES

CONCRETE MASONRY ——— f'c=3,500 P.S.I.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 ——— fy=60,000 P.S.I.
ANCHOR BOLTS A.A.S.H.T.O. M314 ——— fy=55,000 P.S.I.

FOUNDATION DATA

ALLOWABLE SOIL BEARING PRESSURE = 3,500 P.S.F.

TOTAL ESTIMATE OF QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	STRUCT. S-51-27	STRUCT. S-51-28
636.0100	SIGN SUPPORTS CONCRETE MASONRY	CY	9	9
636.1000	SIGN SUPPORTS STEEL REINFORCEMENT HS	LB	1080	1080
641.1200	SIGN BRIDGE CANTILEVERED S-51-27*	LS	1	---
641.1200	SIGN BRIDGE CANTILEVERED S-51-28*	LS	---	1

* - THESE LUMP SUM PAY ITEMS INCLUDE HORIZONTAL TRUSS, VERTICAL STEEL COLUMN, AND ANCHOR ASSEMBLIES.

NOTE: ALL ITEMS FOR S-51-27 ARE CATEGORY 5000
ALL ITEMS FOR S-51-28 ARE CATEGORY 5100

DESIGN DATA

SIGN STR.	DESIGN SIGN AREA	MAX. SIGN DEPTH
S-51-27	264 SF	12 FT
S-51-28	264 SF	12 FT

DESIGNED ACCORDING TO A.A.S.H.T.O. "STANDARD SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 2009.

DEAD LOAD - WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD - 3 PSF TO 1 FACE OF SIGN & AROUND SURFACE OF MEMBERS
WIND PRESSURE - 90 MPH TO SIGN AREA & EXPOSED MEMBERS

WIND COMPONENTS	NORMAL	TRANSVERSE
COMBINATION 1	1.0	0.2
COMBINATION 2	0.6	0.3

GROUP LOADS	% OF ALLOWABLE STRESS
1. DEAD	100
2. DEAD + WIND	133
3. DEAD + ICE + ½WIND	133

NOTE: WIND LOAD FOR GROUP 3 LOADING SHALL NOT BE LESS THAN 25 PSF.

WISCONSIN
KARL E. SCHMID
E-30812
MILWAUKEE, WI
PROFESSIONAL ENGINEER
8/1/2013

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KARL SCHMID (414) 272-2426

NO.	DATE	REVISION	BY

Milwaukee Transportation Partners LLC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 10/10/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE S-51-27, S-51-28

IH 94 / USH 41 AT STH 20

COUNTY	TOWN ~~CITY / VILLAGE~~
RACINE	YORKVILLE

DESIGN SPEC.
AASHTO SIGN SPEC 5TH EDITION 2009

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
CNK	KES	EKM	KES

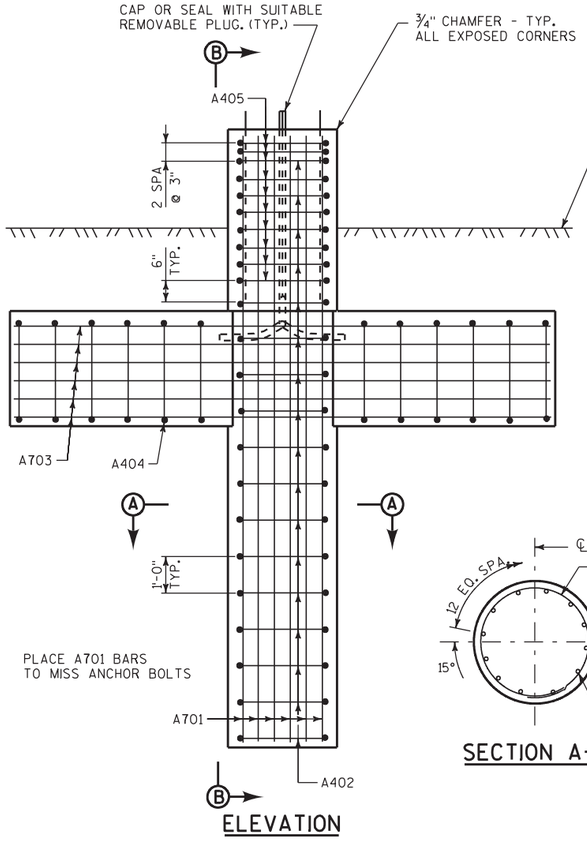
SIGN BRIDGE LAYOUT

SHEET 1 OF 5

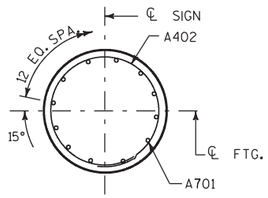
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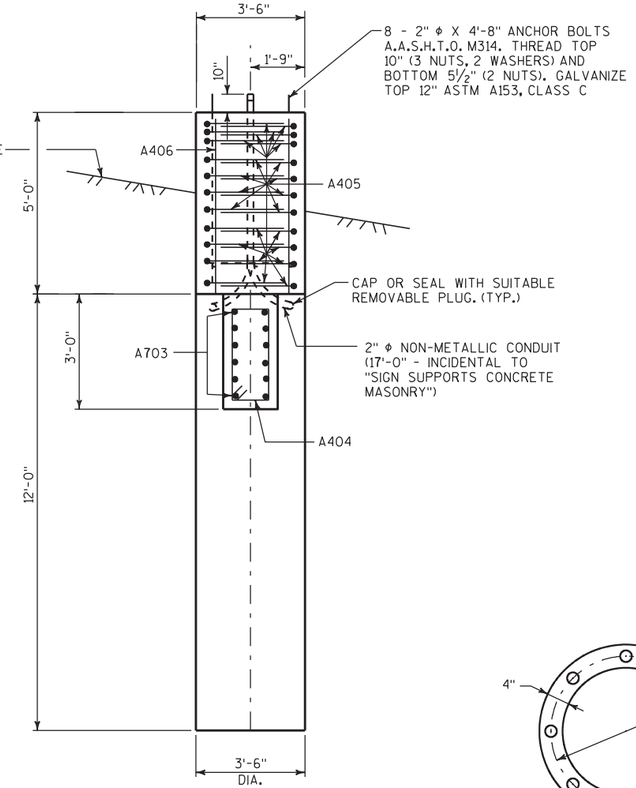
STATE PROJECT NUMBER
1033-02-72



ELEVATION



SECTION A-A

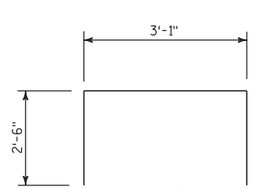


SECTION B-B

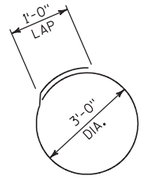
BILL OF BARS

NOTE:
THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

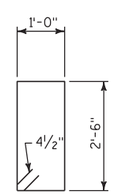
BAR MARK	COAT	NO. REQ'D	LENGTH	BENT	CUT. DIAG.	BUN-DLE	LOCATION
A701		12	16'-6"				FOOTING - COLUMN/TOP
A402		17	10'-6"	X			FOOTING - COLUMN/TOP
A703		12	15'-0"				FOOTING - WINGS
A404		12	7'-6"	X			FOOTING - WINGS
A405		22	7'-11"	X			FOOTING - TOP
A406		4	4'-6"				FOOTING - TOP - COLUMNS



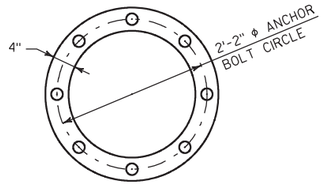
A405



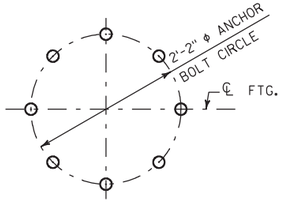
A402

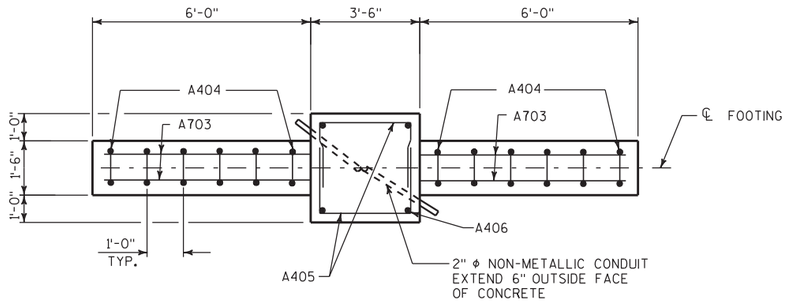


A404
(STIRRUP)

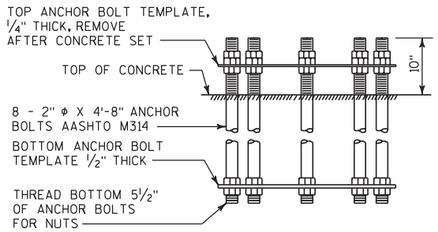


TOP VIEW OF TOP & BOTTOM TEMPLATES





PLAN



ANCHOR BOLT DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-51-27, S-51-28

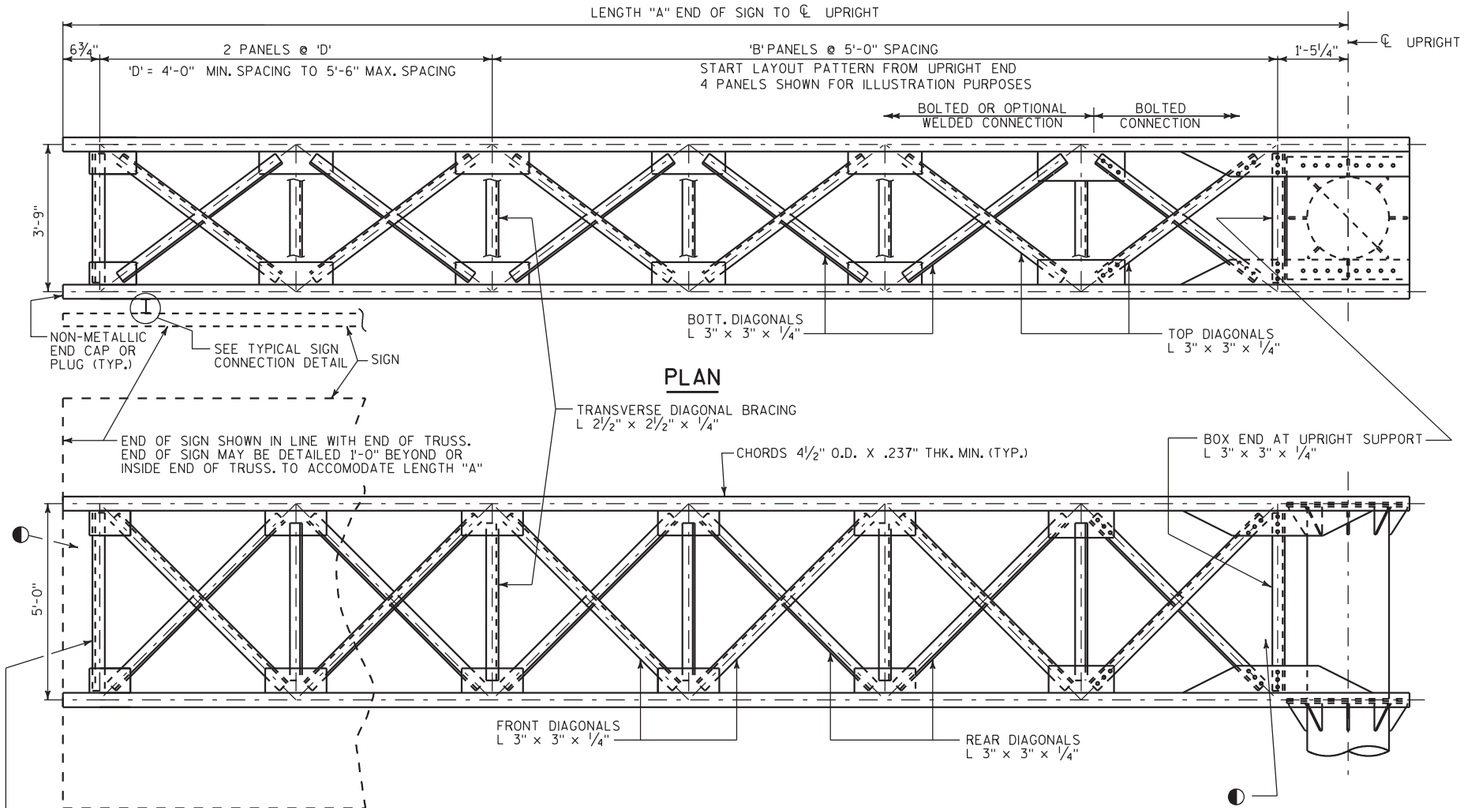
DRAWN BY EKM | PLANS CK'D. KES

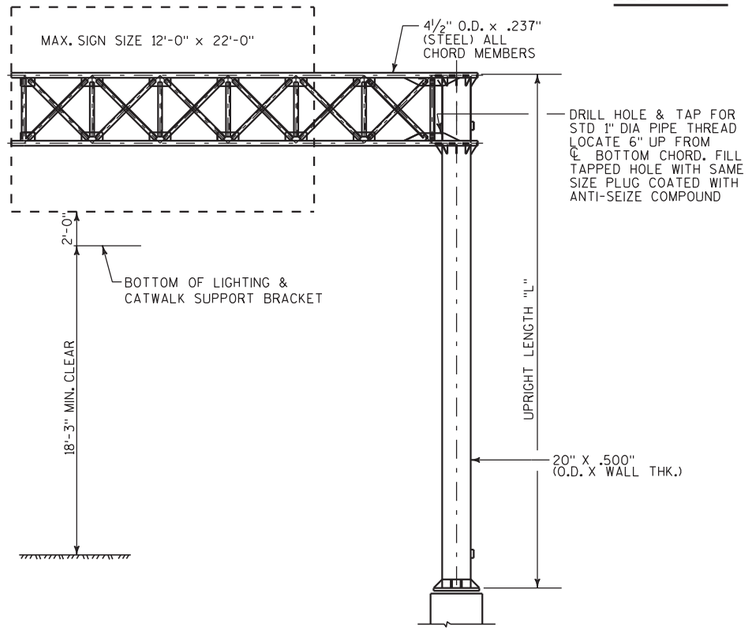
CANTILEVER TRUSS FOOTING

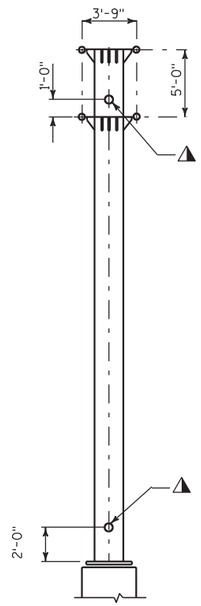
SHEET 2 OF 5

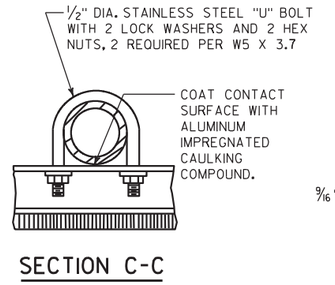
FILE NAME : S:\FinalDesign\20\10330272_M\Structs\S-51-27_28\cds\S5127-28Sht02.dgn PLOT DATE : 31-JUL-2013 14:58 PLOT BY : MSCEKM PLOT NAME : S5127-28Sht02 PLOT SCALE : 4:1

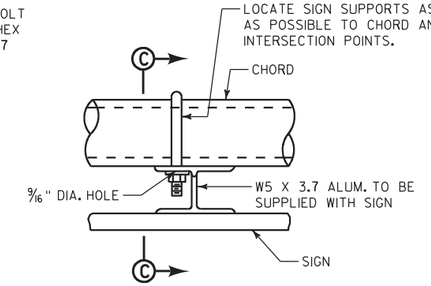
STATE PROJECT NUMBER
1033-02-72











TYPICAL SIGN CONNECTION

TABLE

STRUCTURE	"A"	"L"	"B"	"D"	"Y"
S-51-27	27'-0"	26'-7"	4	5'-0"	2⅜"
S-51-28	27'-0"	26'-7"	4	5'-0"	2⅜"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DESIGNED ACCORDING TO A.A.S.H.T.O. "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC "SIGNALS"

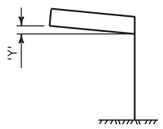
WIND VELOCITY = 90 M.P.H. (3-SECOND GUST SPEED)

PREFABRICATE CAMBER INTO THE HORIZONTAL SUPPORT PROVIDING AN AMOUNT "Y" AT THE END OF TRUSS SHOWN IN THE "CAMBER DIAGRAM". DO NOT RAKE VERTICAL UPRIGHT BY ADJUSTMENT OF THE LEVELING NUTS.

LEGEND

◐ SEE CANTILEVER DETAILS SHEET FOR CONNECTION OF TRANSVERSE DIAGONAL BRACING AT UPRIGHT SUPPORT AND FREE END

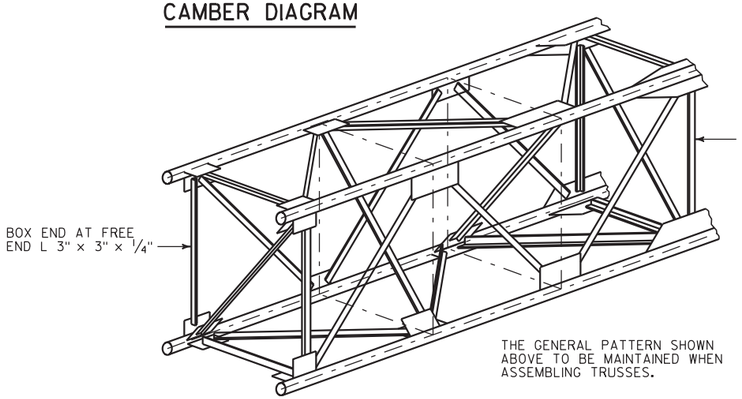
⚠ HANDHOLE, SEE SHT 5 FOR DETAILS



CAMBER DIAGRAM

ULTIMATE DESIGN STRESSES

CHORDS & COLUMN (INCLD. HANDHOLE) — API-5L-X42 — fy=42,000 P.S.I.
STRUCTURAL ANGLES — A.S.T.M. A709 GRADE 36 — fy=36,000 P.S.I.
PLATES & BARS — A.S.T.M. A709 GRADE 36 — fy=36,000 P.S.I.
ANCHOR BOLTS — A.A.S.H.T.O. M314 — fy=55,000 P.S.I.
HIGH STRENGTH BOLTS — A.S.T.M. A325 — fy=92,000 P.S.I.
STRUCTURAL MEMBERS GALVANIZED — A.S.T.M A123
HARDWARE GALVANIZED — A.S.T.M. A153 CLASS C



TYPICAL TRUSS SECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-51-27, S-51-28

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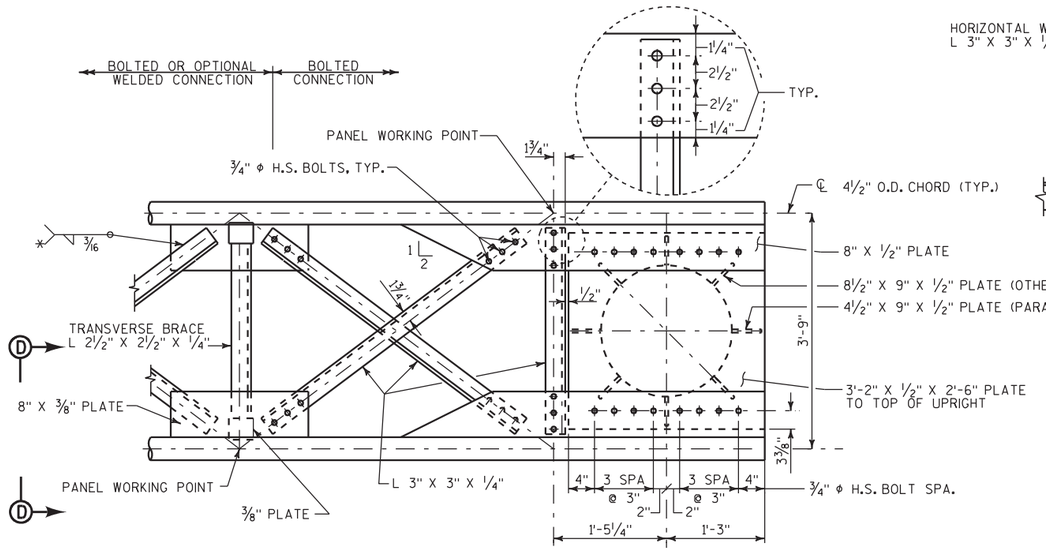
GALVANIZED STEEL CANTILEVER SIGN TRUSS

SHEET 3 OF 5

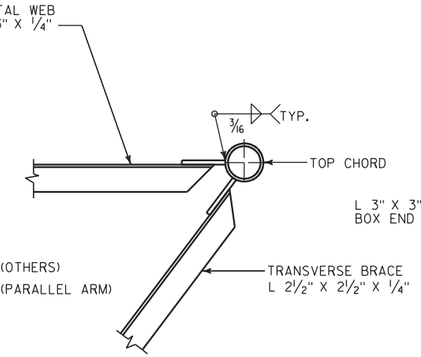
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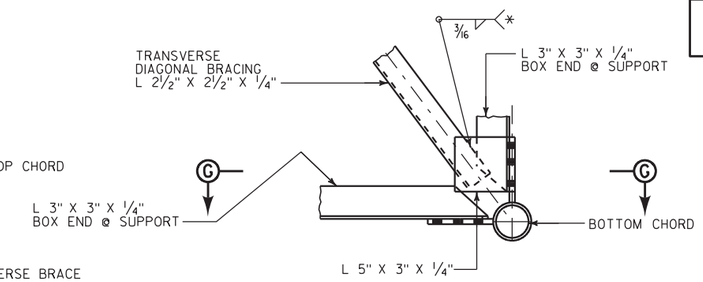
STATE PROJECT NUMBER
1033-02-72



PLAN TRUSS TO UPRIGHT

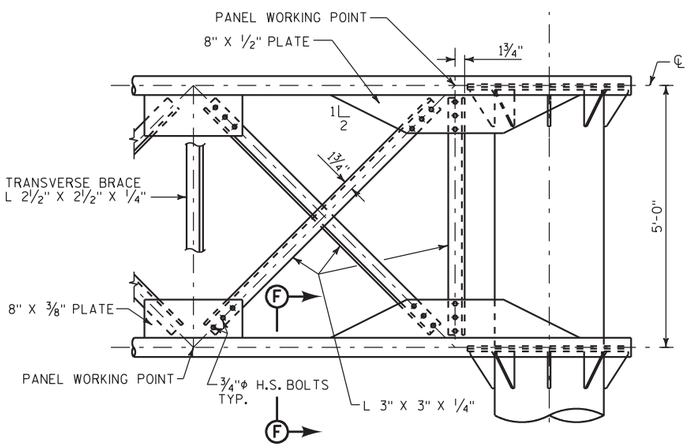


SECTION D-D

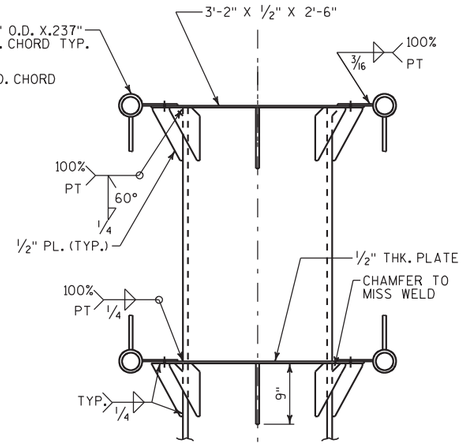


SECTION F-F

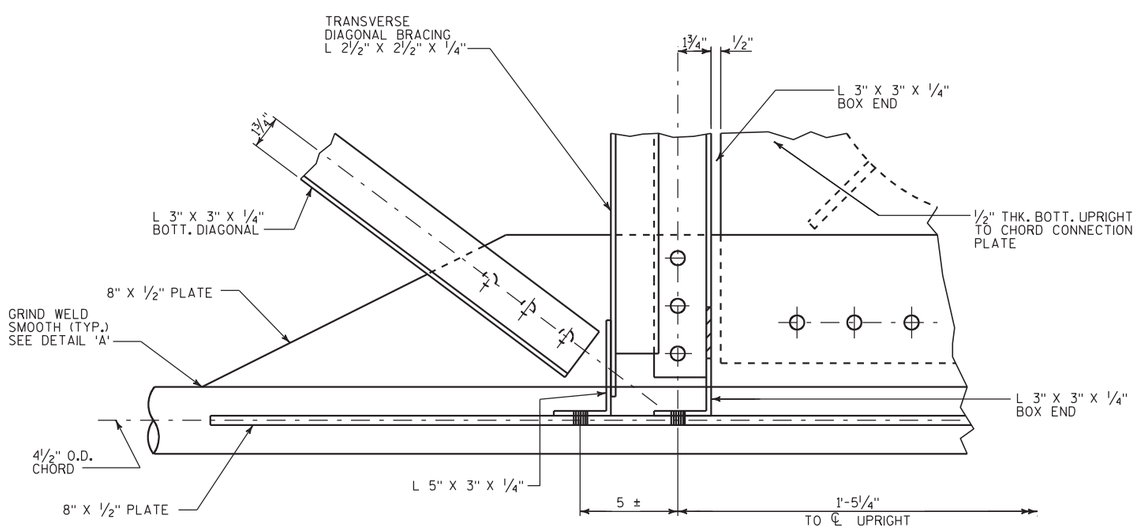
* ANGLE	WELD LENGTH (MIN.)
L 2½" X 2½" X ¼"	7"
L 3" X 3" X ¼"	8"



ELEVATION TRUSS TO UPRIGHT

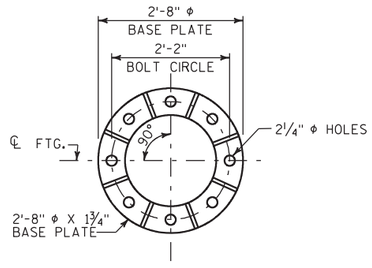


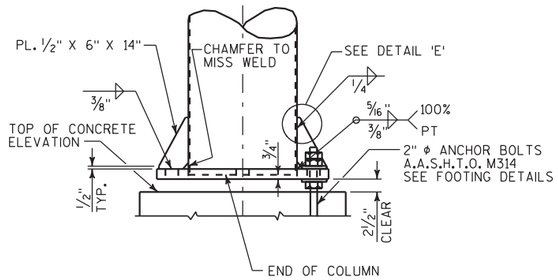
END VIEW TRUSS TO UPRIGHT



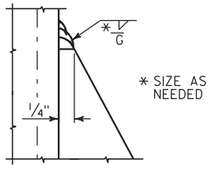
SECTION G-G

(LOOKING DOWN @ BOTT. HORIZ. PLANE @ FRONT CHORD)

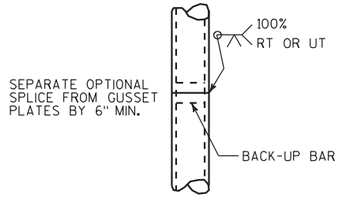




BASE PLATE DETAILS



DETAIL 'E'



OPTIONAL COLUMN OR CHORD SPLICE DETAIL

NO.	DATE	REVISION	BY

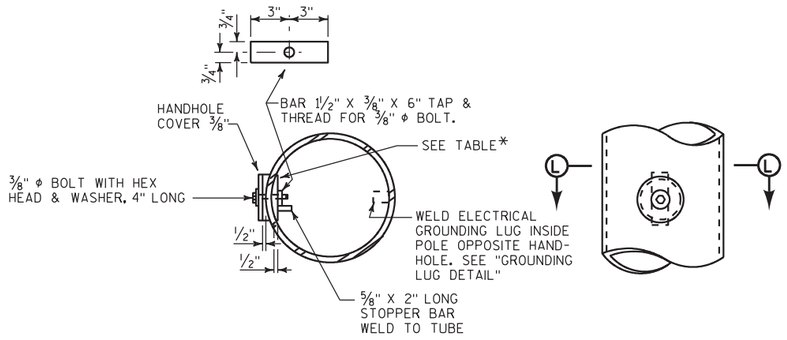
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-51-27, S-51-28

DRAWN BY EKM | PLANS CK'D. KES

GALVANIZED STEEL CANTILEVER SIGN TRUSS DETAILS

SHEET 4 OF 5

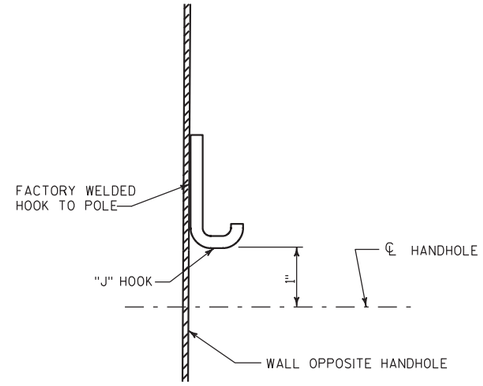


SECTION 'L'

HANDHOLE DETAILS

HANDHOLE NOTES

HANDHOLES SHALL BE LOCATED IN THE COLUMN AS DETAILED ON SHT 3.

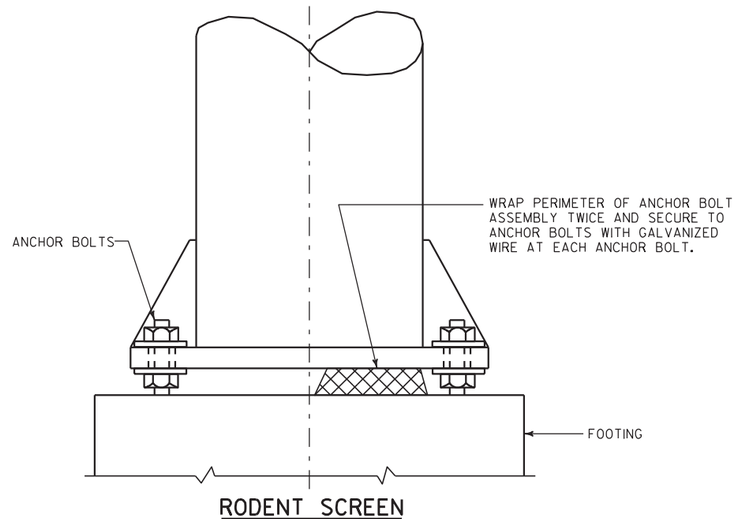


TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.

*

UPRIGHT DIAM. SIZE	HANDHOLE PIPE O.D. X MIN. THK.
UP TO AND INCLD. 16" X .375"	5.562" X .500"
GREATER THAN 16" X .375" TO AND INCLD. 24" X .562"	6.625" X .562"



RODENT SCREEN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURES S-51-27, S-51-28

DRAWN BY EKM | PLANS CK'D. KES

HANDHOLE DETAILS

SHEET 5 OF 5

FILE NAME : S:\FinalDesign\20\10330272_M\Structs\S-51-27_28\cds\S5127-28Sht05.dgn PLOT DATE : 31-JUL-2013 14:58 PLOT BY : MSCEKM PLOT NAME : S5127-28Sht05 PLOT SCALE : 4:1

IH94 - TEMPORARY WIDENING

STATION		Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Reduced Marsh in Fill 0.60	Reduced EBS In Fill 0.80	Mass Ordinate
819+94	AH	81994.00		28.52	0.00	0	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
820+00		82000.00	6.00	28.85	0.00	0	0.00	6.37	0.00	0.00	0.00	6.37	0.00	0.00	0.00	0.00	6.37
821+00		82100.00	100.00	25.96	0.00	0	0.00	101.50	0.00	0.00	0.00	107.87	0.00	0.00	0.00	0.00	107.87
822+00		82200.00	100.00	22.38	0.00	0.64	0.00	89.52	0.00	1.19	0.00	197.39	1.48	0.00	0.00	0.00	195.91
823+00		82300.00	100.00	16.47	0.00	5.59	0.00	71.94	0.00	11.54	0.00	269.34	15.90	0.00	0.00	0.00	253.43
824+00		82400.00	100.00	17.39	0.00	5.16	0.00	62.70	0.00	19.91	0.00	332.04	40.79	0.00	0.00	0.00	291.25
825+00		82500.00	100.00	20.56	0.00	1.71	0.00	70.28	0.00	12.72	0.00	402.32	56.69	0.00	0.00	0.00	345.63
826+00		82600.00	100.00	22.97	0.00	0.28	0.00	80.61	0.00	3.69	0.00	482.93	61.30	0.00	0.00	0.00	421.63
827+00		82700.00	100.00	25.85	0.00	0	0.00	90.41	0.00	0.52	0.00	573.34	61.94	0.00	0.00	0.00	511.39
828+00		82800.00	100.00	24.24	0.00	0	0.00	92.76	0.00	0.00	0.00	666.10	61.94	0.00	0.00	0.00	604.15
829+00		82900.00	100.00	27.11	0.00	0	0.00	95.09	0.00	0.00	0.00	761.19	61.94	0.00	0.00	0.00	699.24
830+00		83000.00	100.00	29.40	0.00	0	0.00	104.65	0.00	0.00	0.00	865.84	61.94	0.00	0.00	0.00	803.89
831+00		83100.00	100.00	27.43	0.00	0	0.00	105.24	0.00	0.00	0.00	971.08	61.94	0.00	0.00	0.00	909.13
832+00		83200.00	100.00	29.32	0.00	0	0.00	105.09	0.00	0.00	0.00	1076.17	61.94	0.00	0.00	0.00	1014.23
833+00		83300.00	100.00	20.96	0.00	1.16	0.00	93.11	0.00	2.15	0.00	1169.28	64.63	0.00	0.00	0.00	1104.65
834+00		83400.00	100.00	20.70	0.00	4.68	0.00	77.15	0.00	10.81	0.00	1246.43	78.15	0.00	0.00	0.00	1168.28
835+00		83500.00	100.00	24.70	0.00	11.7	0.00	84.07	0.00	30.33	0.00	1330.50	116.06	0.00	0.00	0.00	1214.44
836+00		83600.00	100.00	29.17	0.00	2.11	0.00	99.76	0.00	25.57	0.00	1430.26	148.03	0.00	0.00	0.00	1282.23
837+00		83700.00	100.00	25.48	0.00	4.84	0.00	101.20	0.00	12.87	0.00	1531.47	164.12	0.00	0.00	0.00	1367.35
838+00		83800.00	100.00	25.44	0.00	0.79	0.00	94.30	0.00	10.43	0.00	1625.76	177.15	0.00	0.00	0.00	1448.61
839+00		83900.00	100.00	25.05	0.00	0.24	0.00	93.50	0.00	1.91	0.00	1719.26	179.54	0.00	0.00	0.00	1539.73
840+00		84000.00	100.00	27.28	0.00	0	0.00	96.91	0.00	0.44	0.00	1816.17	180.09	0.00	0.00	0.00	1636.08
841+00		84100.00	100.00	30.45	0.00	0	0.00	106.91	0.00	0.00	0.00	1923.08	180.09	0.00	0.00	0.00	1742.99
842+00		84200.00	100.00	32.46	0.00	0	0.00	116.50	0.00	0.00	0.00	2039.58	180.09	0.00	0.00	0.00	1859.49
843+00		84300.00	100.00	40.90	0.00	0	0.00	135.85	0.00	0.00	0.00	2175.43	180.09	0.00	0.00	0.00	1995.34
844+00		84400.00	100.00	41.95	0.00	0	0.00	153.43	0.00	0.00	0.00	2328.86	180.09	0.00	0.00	0.00	2148.76
845+00	BK	84500.00	100.00	50.01	0.00	0	0.00	185.22	0.00	0.00	0.00	2514.08	180.09	0.00	0.00	0.00	2319.06
						Column totals		2514.08	0.00	144.07	0.00						

IH94 - TEMPORARY WIDENING

STATION		Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Reduced Marsh in Fill 0.60	Reduced EBS In Fill 0.80	Mass Ordinate
851+50	AH	85150.00		41.83	0.00	0	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
852+00		85200.00	50.00	37.39	0.00	0	0.00	73.35	0.00	0.00	0.00	73.35	0.00	0.00	0.00	0.00	73.35
853+00		85300.00	100.00	20.04	0.00	2.47	0.00	74.22	0.00	9.15	0.00	147.57	11.44	0.00	0.00	0.00	168.27
854+00		85400.00	100.00	16.71	0.00	10.07	0.00	61.89	0.00	37.30	0.00	209.46	58.06	0.00	0.00	0.00	189.70
855+00	BK	85500.00	100.00	13.15	0.00	26.49	0.00	48.70	0.00	98.11	0.00	258.17	180.69	0.00	0.00	0.00	122.36
						Column totals		258.17	0.00	144.56	0.00						

IH94 - TEMPORARY WIDENING

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced Marsh in Fill 0.60	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate
872+00 AH	87200.00		12.95	0.00	65.44	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
873+00	87300.00	100.00	13.50	0.00	41.91	0.00	48.98	0.00	198.80	0.00	48.98	248.50	0.00	0.00	0.00	-199.51
874+00	87400.00	100.00	12.63	0.00	27.38	0.00	48.39	0.00	128.31	0.00	97.37	408.89	0.00	0.00	0.00	-311.52
875+00	87500.00	100.00	14.57	0.00	10.42	0.00	50.37	0.00	70.00	0.00	147.74	496.39	0.00	0.00	0.00	-348.65
876+00	87600.00	100.00	16.20	0.00	5.2	0.00	56.98	0.00	28.93	0.00	204.72	532.55	0.00	0.00	0.00	-327.82
877+00	87700.00	100.00	13.28	0.00	1.88	0.00	54.59	0.00	13.11	0.00	259.31	548.94	0.00	0.00	0.00	-289.62
878+00 BK	87800.00	100.00	25.68	0.00	0	0.00	95.11	0.00	0.00	0.00	354.43	548.94	0.00	0.00	0.00	-217.47
					Column totals		354.43	0.00	439.15	0.00						

IH94 - TEMPORARY WIDENING

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced Marsh in Fill 0.60	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate
879+00 AH	87900.00		7.28	0.00	0	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
880+00	88000.00	100.00	22.50	0.00	0	0.00	55.15	0.00	0.00	0.00	55.15	0.00	0.00	0.00	0.00	55.15
881+00	88100.00	100.00	18.54	0.00	0	0.00	76.00	0.00	0.00	0.00	131.15	0.00	0.00	0.00	0.00	131.15
882+00	88200.00	100.00	29.34	0.00	0	0.00	88.67	0.00	0.00	0.00	219.81	0.00	0.00	0.00	0.00	219.81
883+00	88300.00	100.00	29.49	0.00	0	0.00	108.94	0.00	0.00	0.00	328.76	0.00	0.00	0.00	0.00	328.76
884+00	88400.00	100.00	31.49	0.00	0	0.00	112.93	0.00	0.00	0.00	441.69	0.00	0.00	0.00	0.00	441.69
885+00	88500.00	100.00	33.38	0.00	0	0.00	120.13	0.00	0.00	0.00	561.81	0.00	0.00	0.00	0.00	561.81
886+00	88600.00	100.00	28.17	0.00	0	0.00	113.98	0.00	0.00	0.00	675.80	0.00	0.00	0.00	0.00	675.80
887+00	88700.00	100.00	15.21	0.00	1.01	0.00	80.33	0.00	1.87	0.00	756.13	2.34	0.00	0.00	0.00	753.79
888+00	88800.00	100.00	14.83	0.00	0.28	0.00	55.63	0.00	2.39	0.00	811.76	5.32	0.00	0.00	0.00	806.44
889+00	88900.00	100.00	18.28	0.00	0	0.00	61.31	0.00	0.52	0.00	873.07	5.97	0.00	0.00	0.00	867.10
890+00	89000.00	100.00	93.83	0.00	0	0.00	207.61	0.00	0.00	0.00	1080.69	5.97	0.00	0.00	0.00	1074.71
891+00	89100.00	100.00	40.11	0.00	0	0.00	248.04	0.00	0.00	0.00	1328.72	5.97	0.00	0.00	0.00	1322.75
892+00	89200.00	100.00	22.54	0.00	0	0.00	116.02	0.00	0.00	0.00	1444.74	5.97	0.00	0.00	0.00	1438.77
893+00	89300.00	100.00	19.67	0.00	0	0.00	78.17	0.00	0.00	0.00	1522.91	5.97	0.00	0.00	0.00	1516.94
894+00	89400.00	100.00	15.23	0.00	0.16	0.00	64.63	0.00	0.30	0.00	1587.54	6.34	0.00	0.00	0.00	1581.19
895+00	89500.00	100.00	16.54	0.00	0.43	0.00	58.83	0.00	1.09	0.00	1646.37	7.71	0.00	0.00	0.00	1638.66
896+00	89600.00	100.00	16.15	0.00	1.83	0.00	60.54	0.00	4.19	0.00	1706.91	12.94	0.00	0.00	0.00	1693.97
897+00	89700.00	100.00	14.67	0.00	1.61	0.00	57.07	0.00	6.37	0.00	1763.98	20.90	0.00	0.00	0.00	1743.08
898+00	89800.00	100.00	14.18	0.00	1.39	0.00	53.43	0.00	5.56	0.00	1817.41	27.85	0.00	0.00	0.00	1789.56
899+00	89900.00	100.00	15.46	0.00	1.09	0.00	54.89	0.00	4.59	0.00	1872.30	33.59	0.00	0.00	0.00	1838.71
900+00	90000.00	100.00	14.50	0.00	3.06	0.00	55.48	0.00	7.69	0.00	1927.78	43.19	0.00	0.00	0.00	1884.58
901+00	90100.00	100.00	15.22	0.00	3.91	0.00	55.04	0.00	12.91	0.00	1982.81	59.33	0.00	0.00	0.00	1923.49
902+00	90200.00	100.00	13.56	0.00	6.03	0.00	53.30	0.00	18.41	0.00	2036.11	82.34	0.00	0.00	0.00	1953.77
902+91 BK	90291.00	91.00	28.13	0.00	0	0.00	70.26	0.00	10.16	0.00	2106.37	95.04	0.00	0.00	0.00	2011.33
					Column totals		2106.37	0.00	76.03	0.00						

IH94 - NORTHBOUND LANES

STATION		Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced Marsh in Fill 0.60	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate
816+94	AH	81694.00		11.85	64.25	0.00	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
817+00		81700.00	6.00	11.5	64.25	0.00	0.00	2.59	14.28	0.00	0.00	2.59	0.00	0.00	0.00	0.00	-11.68
818+00		81800.00	100.00	9.3	64.25	1.61	0.00	38.52	237.96	2.98	0.00	41.11	3.73	0.00	0.00	0.00	-214.85
819+00		81900.00	100.00	8.54	64.25	22.43	0.00	33.04	237.96	44.52	0.00	74.15	59.38	0.00	0.00	0.00	-475.43
820+00		82000.00	100.00	7.69	64.25	43.87	0.00	30.06	237.96	122.78	0.00	104.21	212.85	0.00	0.00	0.00	-836.81
821+00		82100.00	100.00	7.06	64.25	69.38	0.00	27.31	237.96	209.72	0.00	131.52	475.00	0.00	0.00	0.00	-1309.61
822+00		82200.00	100.00	100.97	64.25	93.20	0.00	200.06	237.96	301.07	0.00	331.58	851.34	0.00	0.00	0.00	-1723.86
823+00		82300.00	100.00	96.21	64.25	103.99	0.00	365.15	237.96	365.17	0.00	696.72	1307.80	0.00	0.00	0.00	-2053.13
824+00		82400.00	100.00	98.8	64.25	76.14	0.00	361.13	237.96	333.57	0.00	1057.85	1724.77	0.00	0.00	0.00	-2346.93
825+00		82500.00	100.00	112.16	64.25	56.21	0.00	390.67	237.96	245.09	0.00	1448.52	2031.13	0.00	0.00	0.00	-2500.60
826+00		82600.00	100.00	123.91	64.25	38.77	0.00	437.17	237.96	175.89	0.00	1885.69	2251.00	0.00	0.00	0.00	-2521.25
827+00		82700.00	100.00	150.67	64.25	29.88	0.00	508.48	237.96	127.13	0.00	2394.17	2409.91	0.00	0.00	0.00	-2409.65
828+00		82800.00	100.00	181.09	64.25	13.02	0.00	614.37	237.96	79.44	0.00	3008.54	2509.21	0.00	0.00	0.00	-2132.54
829+00		82900.00	100.00	311.09	64.25	29.55	0.00	911.44	237.96	78.83	0.00	3919.98	2607.75	0.00	0.00	0.00	-1557.60
830+00		83000.00	100.00	271.49	64.25	39.32	0.00	1078.85	237.96	127.54	0.00	4998.84	2767.18	0.00	0.00	0.00	-876.14
831+00		83100.00	100.00	264.27	64.25	18.74	0.00	992.15	237.96	107.52	0.00	5990.98	2901.57	0.00	0.00	0.00	-256.35
832+00		83200.00	100.00	302.01	64.25	0.00	0.00	1048.67	237.96	34.70	0.00	7039.65	2944.95	0.00	0.00	0.00	510.97
833+00		83300.00	100.00	279.5	64.25	0.18	0.00	1076.87	237.96	0.33	0.00	8116.52	2945.37	0.00	0.00	0.00	1349.46
834+00		83400.00	100.00	230.11	64.25	43.69	0.00	943.72	237.96	81.24	0.00	9060.24	3046.92	0.00	0.00	0.00	1953.67
835+00		83500.00	100.00	597.45	64.25	41.05	0.00	1532.52	237.96	156.93	0.00	10592.76	3243.08	0.00	0.00	0.00	3052.07
836+00		83600.00	100.00	506.68	64.25	73.54	0.00	2044.69	237.96	212.20	0.00	12637.45	3508.33	0.00	0.00	0.00	4593.54
837+00		83700.00	100.00	401.15	64.25	130.44	0.00	1681.17	237.96	377.74	0.00	14318.61	3980.51	0.00	0.00	0.00	5564.57
838+00		83800.00	100.00	360.84	64.25	185.07	0.00	1411.09	237.96	584.28	0.00	15729.71	4710.86	0.00	0.00	0.00	6007.35
839+00		83900.00	100.00	380.35	64.25	214.31	0.00	1372.57	237.96	739.59	0.00	17102.28	5635.35	0.00	0.00	0.00	6217.47
840+00		84000.00	100.00	312.22	64.25	236.56	0.00	1282.54	237.96	834.94	0.00	18384.82	6679.03	0.00	0.00	0.00	6218.36
841+00		84100.00	100.00	383.01	64.25	224.99	0.00	1287.46	237.96	854.72	0.00	19672.28	7747.43	0.00	0.00	0.00	6199.46
842+00		84200.00	100.00	279.16	64.25	193.81	0.00	1226.24	237.96	775.56	0.00	20898.52	8716.88	0.00	0.00	0.00	6218.29
843+00		84300.00	100.00	373.49	64.25	169.72	0.00	1208.61	237.96	673.20	0.00	22107.13	9558.38	0.00	0.00	0.00	6347.44
844+00		84400.00	100.00	434.5	64.25	144.82	0.00	1496.28	237.96	582.48	0.00	23603.41	10286.48	0.00	0.00	0.00	6877.65
845+00		84500.00	100.00	408.74	64.25	140.89	0.00	1561.56	237.96	529.09	0.00	25164.96	10947.85	0.00	0.00	0.00	7539.88
846+00		84600.00	100.00	409.12	64.25	145.17	0.00	1514.56	237.96	529.74	0.00	26679.52	11610.02	0.00	0.00	0.00	8154.29
847+00		84700.00	100.00	412.32	64.25	150.82	0.00	1521.19	237.96	548.13	0.00	28200.71	12295.19	0.00	0.00	0.00	8752.35
848+00		84800.00	100.00	349.43	64.25	151.66	0.00	1410.65	237.96	560.15	0.00	29611.35	12995.37	0.00	0.00	0.00	9224.85
849+00		84900.00	100.00	324.48	64.25	131.83	0.00	1247.98	237.96	524.98	0.00	30859.34	13651.60	0.00	0.00	0.00	9578.65
850+00		85000.00	100.00	247.95	64.25	76.90	0.00	1060.06	237.96	386.54	0.00	31919.39	14134.77	0.00	0.00	0.00	9917.57
851+00		85100.00	100.00	0	64.25	157.58	0.00	459.17	237.96	434.22	0.00	32378.56	14677.55	0.00	0.00	0.00	9595.99
852+00		85200.00	100.00	0	64.25	196.44	0.00	0.00	237.96	655.59	0.00	32378.56	15497.04	0.00	0.00	0.00	8538.54
853+00		85300.00	100.00	0	64.25	243.89	0.00	0.00	237.96	815.43	0.00	32378.56	16516.32	0.00	0.00	0.00	7281.29
854+00		85400.00	100.00	0	64.25	297.49	0.00	0.00	237.96	1002.56	0.00	32378.56	17769.51	0.00	0.00	0.00	5790.14
855+00		85500.00	100.00	0	64.25	334.10	0.00	0.00	237.96	1169.61	0.00	32378.56	19231.53	0.00	0.00	0.00	4090.16
856+00		85600.00	100.00	0.32	64.25	309.51	0.00	0.59	237.96	1191.87	0.00	32379.15	20721.37	0.00	0.00	0.00	2362.95
857+00		85700.00	100.00	1.66	64.25	274.59	0.00	3.67	237.96	1081.67	0.00	32382.82	22073.45	0.00	0.00	0.00	776.57
858+00		85800.00	100.00	2.14	64.25	241.32	0.00	7.04	237.96	955.39	0.00	32389.85	23267.69	0.00	0.00	0.00	-648.59
859+00		85900.00	100.00	0	64.25	220.80	0.00	3.96	237.96	855.78	0.00	32393.82	24337.41	0.00	0.00	0.00	-1952.31
860+00		86000.00	100.00	0	64.25	197.48	0.00	0.00	237.96	774.59	0.00	32393.82	25305.65	0.00	0.00	0.00	-3158.52
861+00	BK	86100.00	100.00	26.95	64.25	162.03	0.00	49.91	237.96	665.76	0.00	32443.72	26137.85	0.00	0.00	0.00	-4178.77
						Column totals		32443.72	10484.65	20910.28	0.00						

IH94 - NORTHBOUND LANES

STATION		Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced Marsh in Fill 0.60	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate
864+00	AH	86400.00		0.00	64.25	754.93	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
865+00		86500.00	100.00	0.00	64.25	796.05	0.00	0.00	237.96	2872.19	0.00	0.00	3590.23	0.00	0.00	0.00	-3828.19
866+00		86600.00	100.00	0.00	64.25	863.27	0.00	0.00	237.96	3072.81	0.00	0.00	7431.25	0.00	0.00	0.00	-7907.18
867+00		86700.00	100.00	204.53	64.25	921.61	0.00	378.76	237.96	3305.33	0.00	378.76	11562.92	0.00	0.00	0.00	-11898.05
868+00		86800.00	100.00	117.99	64.25	921.33	0.00	597.26	237.96	3412.85	0.00	976.02	15828.98	0.00	0.00	0.00	-15804.81
869+00		86900.00	100.00	47.75	64.25	932.15	0.00	306.93	237.96	3432.37	0.00	1282.94	20119.44	0.00	0.00	0.00	-20026.31
870+00		87000.00	100.00	12.87	64.25	888.21	0.00	112.26	237.96	3371.04	0.00	1395.20	24333.24	0.00	0.00	0.00	-24365.81
871+00		87100.00	100.00	2.00	64.25	820.24	0.00	27.54	237.96	3163.80	0.00	1422.74	28287.99	0.00	0.00	0.00	-28530.99
872+00		87200.00	100.00	0.00	64.25	787.78	0.00	3.70	237.96	2977.81	0.00	1426.44	32010.25	0.00	0.00	0.00	-32487.51
873+00		87300.00	100.00	0.00	64.25	660.66	0.00	0.00	237.96	2682.30	0.00	1426.44	35363.13	0.00	0.00	0.00	-36078.35
874+00		87400.00	100.00	20.14	64.25	283.72	0.00	37.30	237.96	1748.85	0.00	1463.74	37549.19	0.00	0.00	0.00	-38465.08
875+00		87500.00	100.00	57.86	64.25	270.91	0.00	144.44	237.96	1027.09	0.00	1608.19	38833.06	0.00	0.00	0.00	-39842.46
876+00		87600.00	100.00	86.47	64.25	101.12	0.00	267.28	237.96	688.94	0.00	1875.46	39694.24	0.00	0.00	0.00	-40674.33
877+00		87700.00	100.00	205.06	64.25	157.6	0.00	539.87	237.96	479.11	0.00	2415.33	40293.13	0.00	0.00	0.00	-40971.31
878+00		87800.00	100.00	143.85	64.25	83.12	0.00	646.13	237.96	445.78	0.00	3061.46	40850.35	0.00	0.00	0.00	-41120.37
879+00		87900.00	100.00	184.76	64.25	17.38	0.00	608.54	237.96	186.11	0.00	3670.00	41082.99	0.00	0.00	0.00	-40982.43
880+00		88000.00	100.00	201.51	64.25	2.92	0.00	715.31	237.96	37.59	0.00	4385.31	41129.98	0.00	0.00	0.00	-40552.07
881+00		88100.00	100.00	229.00	64.25	0.6	0.00	797.24	237.96	6.52	0.00	5182.56	41138.13	0.00	0.00	0.00	-40000.94
882+00		88200.00	100.00	239.04	64.25	0	0.00	866.74	237.96	1.11	0.00	6049.30	41139.51	0.00	0.00	0.00	-39373.55
883+00		88300.00	100.00	236.30	64.25	0.23	0.00	880.26	237.96	0.43	0.00	6929.56	41140.05	0.00	0.00	0.00	-38731.79
884+00		88400.00	100.00	240.87	64.25	0	0.00	883.65	237.96	0.43	0.00	7813.20	41140.58	0.00	0.00	0.00	-38086.63
885+00		88500.00	100.00	239.29	64.25	2.21	0.00	889.19	237.96	4.09	0.00	8702.39	41145.69	0.00	0.00	0.00	-37440.53
886+00		88600.00	100.00	230.21	64.25	4.24	0.00	869.44	237.96	11.94	0.00	9571.83	41160.63	0.00	0.00	0.00	-36823.98
887+00		88700.00	100.00	458.22	64.25	3.79	0.00	1274.87	237.96	14.87	0.00	10846.70	41179.21	0.00	0.00	0.00	-35805.66
888+00		88800.00	100.00	673.18	64.25	0.7	0.00	2095.19	237.96	8.31	0.00	12941.89	41189.61	0.00	0.00	0.00	-33958.83
889+00		88900.00	100.00	847.35	64.25	0	0.00	2815.80	237.96	1.30	0.00	15757.69	41191.23	0.00	0.00	0.00	-31382.62
890+00		89000.00	100.00	787.84	64.25	0	0.00	3028.13	237.96	0.00	0.00	18785.81	41191.23	0.00	0.00	0.00	-28592.45
891+00		89100.00	100.00	448.84	64.25	0	0.00	2290.15	237.96	0.00	0.00	21075.96	41191.23	0.00	0.00	0.00	-26540.26
892+00		89200.00	100.00	436.24	64.25	4.47	0.00	1639.04	237.96	8.28	0.00	22715.00	41201.57	0.00	0.00	0.00	-25149.54
893+00		89300.00	100.00	149.51	64.25	7.91	0.00	1084.72	237.96	22.93	0.00	23799.72	41230.23	0.00	0.00	0.00	-24331.44
894+00		89400.00	100.00	219.46	64.25	0.7	0.00	683.28	237.96	15.94	0.00	24483.00	41250.16	0.00	0.00	0.00	-23906.05
895+00		89500.00	100.00	236.07	64.25	3.98	0.00	843.57	237.96	8.67	0.00	25326.57	41261.00	0.00	0.00	0.00	-23311.27
896+00		89600.00	100.00	139.77	64.25	9.49	0.00	696.00	237.96	24.94	0.00	26022.57	41292.18	0.00	0.00	0.00	-22884.42
897+00		89700.00	100.00	135.12	64.25	4.43	0.00	509.06	237.96	25.78	0.00	26531.63	41324.40	0.00	0.00	0.00	-22645.55
898+00		89800.00	100.00	111.74	64.25	25.12	0.00	457.15	237.96	54.72	0.00	26988.78	41392.80	0.00	0.00	0.00	-22494.76
899+00		89900.00	100.00	101.97	64.25	18.95	0.00	395.76	237.96	81.61	0.00	27384.54	41494.81	0.00	0.00	0.00	-22438.98
900+00		90000.00	100.00	98.05	64.25	27.7	0.00	370.41	237.96	86.39	0.00	27754.94	41602.80	0.00	0.00	0.00	-22414.52
901+00		90100.00	100.00	90.64	64.25	39.41	0.00	349.43	237.96	124.28	0.00	28104.37	41758.15	0.00	0.00	0.00	-22458.41
902+00		90200.00	100.00	8.96	64.25	39.68	0.00	184.44	237.96	146.46	0.00	28288.81	41941.23	0.00	0.00	0.00	-22695.00
903+00		90300.00	100.00	8.32	64.25	44.28	0.00	32.00	237.96	155.48	0.00	28320.81	42135.58	0.00	0.00	0.00	-23095.32
904+00		90400.00	100.00	7.32	64.25	29.8	0.00	28.96	237.96	137.19	0.00	28349.78	42307.06	0.00	0.00	0.00	-23475.80
905+00		90500.00	100.00	7.81	64.25	13.41	0.00	28.02	237.96	80.02	0.00	28377.80	42407.08	0.00	0.00	0.00	-23785.77
906+00		90600.00	100.00	7.69	64.25	2.34	0.00	28.70	237.96	29.17	0.00	28406.50	42443.54	0.00	0.00	0.00	-24031.49
906+41	BK	90641.00	41.00	8.53	64.25	0.01	0.00	12.32	97.56	1.78	0.00	28418.82	42445.77	0.00	0.00	0.00	-24118.97
						Column totals		28418.82	10092.01	33956.62	0.00						

RAMP SE

STATION		Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced Marsh in Fill 0.60	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate
850+14	AH	85014.00		206.96	12.33	48.32	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
850+50		85050.00	36.00	219.21	12.33	53.11	0.00	284.11	16.44	67.62	0.00	284.11	84.53	0.00	0.00	0.00	183.14
851+00		85100.00	50.00	217.15	12.33	60.3	0.00	404.04	22.84	105.01	0.00	688.15	215.79	0.00	0.00	0.00	433.08
851+50		85150.00	50.00	224.85	12.33	83.13	0.00	409.26	22.84	132.81	0.00	1097.41	381.79	0.00	0.00	0.00	653.49
852+00		85200.00	50.00	230.55	12.33	76.53	0.00	421.67	22.84	147.83	0.00	1519.08	566.59	0.00	0.00	0.00	867.53
852+50		85250.00	50.00	86.31	12.33	88.49	0.00	293.39	22.84	152.80	0.00	1812.47	757.58	0.00	0.00	0.00	947.08
853+00		85300.00	50.00	98.7	12.33	88.15	0.00	171.31	22.84	163.56	0.00	1983.77	962.03	0.00	0.00	0.00	891.10
853+50		85350.00	50.00	107.92	12.33	85.82	0.00	191.31	22.84	161.08	0.00	2175.09	1163.38	0.00	0.00	0.00	858.22
854+00		85400.00	50.00	116.99	12.33	88.31	0.00	208.25	22.84	161.23	0.00	2383.34	1364.92	0.00	0.00	0.00	842.10
854+50		85450.00	50.00	125.68	12.33	83.13	0.00	224.69	22.84	158.74	0.00	2608.03	1563.34	0.00	0.00	0.00	845.53
855+00		85500.00	50.00	134.08	12.33	81.54	0.00	240.52	22.84	152.47	0.00	2848.55	1753.93	0.00	0.00	0.00	872.61
855+50		85550.00	50.00	144.91	12.33	66.09	0.00	258.32	22.84	136.69	0.00	3106.87	1924.80	0.00	0.00	0.00	937.23
855+90		85590.00	40.00	156.28	12.33	58.78	0.00	223.10	18.27	92.50	0.00	3329.98	2040.42	0.00	0.00	0.00	1026.44
856+00		85600.00	10.00	154.59	12.33	30.77	0.00	57.57	4.57	16.58	0.00	3387.54	2061.15	0.00	0.00	0.00	1058.71
856+50		85650.00	50.00	138.08	12.33	20.94	0.00	270.99	22.84	47.88	0.00	3658.54	2121.00	0.00	0.00	0.00	1247.02
857+00		85700.00	50.00	113.19	12.33	16.82	0.00	232.66	22.84	34.96	0.00	3891.19	2164.71	0.00	0.00	0.00	1413.13
857+50		85750.00	50.00	94.2	12.33	0.01	0.00	192.03	22.84	15.58	0.00	4083.22	2184.18	0.00	0.00	0.00	1562.84
858+00		85800.00	50.00	86.91	12.33	0	0.00	167.69	22.84	0.01	0.00	4250.92	2184.20	0.00	0.00	0.00	1707.68
858+05	BK	85805.00	5.00	88.51	12.33	0	0.00	16.24	2.28	0.00	0.00	4267.16	2184.20	0.00	0.00	0.00	1721.64
							Column totals	4267.16	361.32	1747.36	0.00						

RAMP NE

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced Marsh in Fill 0.60	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate
864+55 AH	86455.00		62.92	12.33	0.01	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
865+00	86500.00	45.00	159.63	12.33	0	0.00	185.46	20.56	0.01	0.00	185.46	0.01	0.00	0.00	0.00	164.89
865+50	86550.00	50.00	148.91	12.33	0	0.00	285.69	22.84	0.00	0.00	471.14	0.01	0.00	0.00	0.00	427.74
866+00	86600.00	50.00	128.96	12.33	0	0.00	257.29	22.84	0.00	0.00	728.43	0.01	0.00	0.00	0.00	662.19
866+50	86650.00	50.00	89.35	12.33	0.04	0.00	202.14	22.84	0.04	0.00	930.57	0.06	0.00	0.00	0.00	841.44
866+95	86695.00	45.00	378.5	12.33	74.4	0.00	389.88	20.56	62.03	0.00	1320.44	77.60	0.00	0.00	0.00	1133.22
867+00	86700.00	5.00	338.29	12.33	101	0.00	66.37	2.28	16.24	0.00	1386.81	97.90	0.00	0.00	0.00	1177.00
867+50	86750.00	50.00	250.01	12.33	112.37	0.00	544.72	22.84	197.56	0.00	1931.54	344.86	0.00	0.00	0.00	1451.93
868+00	86800.00	50.00	150.83	12.33	149.5	0.00	371.15	22.84	242.47	0.00	2302.68	647.95	0.00	0.00	0.00	1497.15
868+50	86850.00	50.00	111.12	12.33	195.82	0.00	242.55	22.84	319.74	0.00	2545.23	1047.62	0.00	0.00	0.00	1317.18
869+00	86900.00	50.00	84.38	12.33	303.36	0.00	181.02	22.84	462.20	0.00	2726.25	1625.38	0.00	0.00	0.00	897.60
869+50	86950.00	50.00	136.63	12.33	370.66	0.00	204.64	22.84	624.09	0.00	2930.89	2405.49	0.00	0.00	0.00	299.28
870+00	87000.00	50.00	181.44	12.33	456.01	0.00	294.51	22.84	765.44	0.00	3225.40	3362.29	0.00	0.00	0.00	-385.84
870+50	87050.00	50.00	208.44	12.33	583.12	0.00	361.00	22.84	962.16	0.00	3586.40	4564.98	0.00	0.00	0.00	-1250.38
871+00	87100.00	50.00	260.54	12.33	685.33	0.00	434.24	22.84	1174.49	0.00	4020.64	6033.10	0.00	0.00	0.00	-2307.09
871+50	87150.00	50.00	270.59	12.33	799.99	0.00	491.79	22.84	1375.30	0.00	4512.43	7752.22	0.00	0.00	0.00	-3557.26
872+00	87200.00	50.00	297.79	12.33	836.09	0.00	526.28	22.84	1514.89	0.00	5038.70	9645.83	0.00	0.00	0.00	-4947.43
872+50	87250.00	50.00	332.58	12.33	828.24	0.00	583.68	22.84	1541.05	0.00	5622.38	11572.14	0.00	0.00	0.00	-6312.90
873+00	87300.00	50.00	337.42	12.33	818.48	0.00	620.37	22.84	1524.74	0.00	6242.75	13478.06	0.00	0.00	0.00	-7621.30
873+50	87350.00	50.00	394.57	12.33	767.84	0.00	677.77	22.84	1468.81	0.00	6920.52	15314.08	0.00	0.00	0.00	-8802.39
874+00	87400.00	50.00	431.59	12.33	722.26	0.00	764.96	22.84	1379.72	0.00	7685.48	17038.73	0.00	0.00	0.00	-9784.92
874+50	87450.00	50.00	467.32	12.33	540.74	0.00	832.32	22.84	1169.44	0.00	8517.80	18500.54	0.00	0.00	0.00	-10437.24
875+00	87500.00	50.00	589.12	12.33	468.59	0.00	978.19	22.84	934.56	0.00	9495.99	19668.74	0.00	0.00	0.00	-10650.10
875+50	87550.00	50.00	483.11	12.33	380.57	0.00	992.81	22.84	786.26	0.00	10488.80	20651.57	0.00	0.00	0.00	-10662.96
876+00	87600.00	50.00	433.6	12.33	282.91	0.00	848.81	22.84	614.33	0.00	11337.60	21419.48	0.00	0.00	0.00	-10604.91
876+50	87650.00	50.00	403.75	12.33	195.48	0.00	775.32	22.84	442.95	0.00	12112.93	21973.18	0.00	0.00	0.00	-10406.12
876+79 BK	87679.00	29.00	92.5	12.33	175.61	0.00	266.50	13.25	199.29	0.00	12379.43	22222.29	0.00	0.00	0.00	-10401.97
Column totals							12379.43	559.11	17777.83	0.00						

STH 20

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced Marsh in Fill 0.60	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate
293+00 AH	29300.00		221.64	0.00	0	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
293+50	29350.00	50.00	270.58	0.00	0	0.00	455.76	0.00	0.00	0.00	455.76	0.00	0.00	0.00	0.00	455.76
294+00	29400.00	50.00	532.8	0.00	6.81	0.00	743.87	0.00	6.31	0.00	1199.63	7.88	0.00	0.00	0.00	1191.75
294+50	29450.00	50.00	419.52	0.00	7.09	0.00	881.78	0.00	12.87	0.00	2081.41	23.97	0.00	0.00	0.00	2057.44
294+75	29475.00	25.00	268.31	0.00	9.5	0.00	318.44	0.00	7.68	0.00	2399.85	33.57	0.00	0.00	0.00	2366.28
295+00	29500.00	25.00	233.67	0.00	0	0.00	232.40	0.00	4.40	0.00	2632.25	39.07	0.00	0.00	0.00	2593.18
295+50	29550.00	50.00	84.48	0.00	0	0.00	294.58	0.00	0.00	0.00	2926.83	39.07	0.00	0.00	0.00	2887.76
295+75 BK	29575.00	25.00	43.07	0.00	0	0.00	39.88	0.00	0.00	0.00	2966.71	39.07	0.00	0.00	0.00	2946.81
					Column totals		2966.71	0.00	31.25	0.00						

CTH C

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced Marsh in Fill 0.60	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate
65+95 AH	6595.00		55.16	19.00	89.17	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
66+00 BK	6600.00	5.00	55.34	19.00	114.93	0.00	10.23	3.52	18.90	0.00	10.23	23.62	0.00	0.00	0.00	-16.91
68+65 AH	6865.00		53.18	19.00	40.77	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68+75 BK	6875.00	10.00	51.66	19.00	33.41	0.00	19.41	7.04	13.74	0.00	19.41	17.17	0.00	0.00	0.00	-4.79
					Column totals		29.65	10.56	32.64	0.00						

IH94 - SOUTHBOUND LANES

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Reduced Marsh in Fill 0.60	Reduced EBS In Fill 0.80	Mass Ordinate
819+94 AH	81993.75		10.51	64.25	0	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
820+00	82000.00	6.25	10.99	64.25	0	0.00	2.49	14.87	0.00	0.00	2.49	0.00	0.00	0.00	0.00	-12.38
821+00	82100.00	100.00	11.76	64.25	0.68	0.00	42.13	237.96	1.26	0.00	44.62	1.57	0.00	0.00	0.00	-209.79
822+00	82200.00	100.00	115.22	64.25	4.73	0.00	235.15	237.96	10.02	0.00	279.77	14.10	0.00	0.00	0.00	-225.13
823+00	82300.00	100.00	106.95	64.25	30.74	0.00	411.43	237.96	65.69	0.00	691.19	96.20	0.00	0.00	0.00	-133.77
824+00	82400.00	100.00	103.9	64.25	25.64	0.00	390.46	237.96	104.41	0.00	1081.66	226.71	0.00	0.00	0.00	-111.78
825+00	82500.00	100.00	112.7	64.25	21.4	0.00	401.11	237.96	87.11	0.00	1482.77	335.60	0.00	0.00	0.00	-57.52
826+00	82600.00	100.00	121.91	64.25	13.39	0.00	434.46	237.96	64.43	0.00	1917.23	416.13	0.00	0.00	0.00	58.44
827+00	82700.00	100.00	153.64	64.25	3.94	0.00	510.28	237.96	32.09	0.00	2427.51	456.25	0.00	0.00	0.00	290.64
828+00	82800.00	100.00	178.36	64.25	0.02	0.00	614.81	237.96	7.33	0.00	3042.32	465.42	0.00	0.00	0.00	658.33
829+00	82900.00	100.00	264.19	64.25	2.26	0.00	819.54	237.96	4.22	0.00	3861.86	470.69	0.00	0.00	0.00	1234.63
830+00	83000.00	100.00	247.78	64.25	2.31	0.00	948.09	237.96	8.46	0.00	4809.95	481.27	0.00	0.00	0.00	1934.18
831+00	83100.00	100.00	229.38	64.25	4.58	0.00	883.63	237.96	12.76	0.00	5693.58	497.22	0.00	0.00	0.00	2563.89
832+00	83200.00	100.00	227.49	64.25	6.46	0.00	846.06	237.96	20.44	0.00	6539.64	522.78	0.00	0.00	0.00	3146.43
833+00	83300.00	100.00	216.69	64.25	9.51	0.00	822.56	237.96	29.57	0.00	7362.19	559.75	0.00	0.00	0.00	3694.06
834+00	83400.00	100.00	211.07	64.25	16.54	0.00	792.15	237.96	48.24	0.00	8154.34	620.05	0.00	0.00	0.00	4187.94
835+00	83500.00	100.00	203.53	64.25	23.72	0.00	767.78	237.96	74.56	0.00	8922.12	713.24	0.00	0.00	0.00	4624.56
836+00	83600.00	100.00	197.26	64.25	12.63	0.00	742.20	237.96	67.31	0.00	9664.32	797.38	0.00	0.00	0.00	5044.66
837+00	83700.00	100.00	195.92	64.25	11.02	0.00	728.11	237.96	43.80	0.00	10392.43	852.13	0.00	0.00	0.00	5480.06
838+00	83800.00	100.00	192.88	64.25	6.15	0.00	720.00	237.96	31.80	0.00	11112.43	891.88	0.00	0.00	0.00	5922.35
839+00	83900.00	100.00	180.05	64.25	5.4	0.00	690.61	237.96	21.39	0.00	11803.04	918.61	0.00	0.00	0.00	6348.26
840+00	84000.00	100.00	159.93	64.25	7.34	0.00	629.59	237.96	23.59	0.00	12432.64	948.10	0.00	0.00	0.00	6710.40
841+00	84100.00	100.00	179.2	64.25	10.57	0.00	628.02	237.96	33.17	0.00	13060.66	989.56	0.00	0.00	0.00	7059.00
842+00	84200.00	100.00	185.21	64.25	12.33	0.00	674.83	237.96	42.41	0.00	13735.49	1042.57	0.00	0.00	0.00	7442.86
843+00	84300.00	100.00	172.81	64.25	5.73	0.00	663.00	237.96	33.44	0.00	14398.49	1084.38	0.00	0.00	0.00	7826.09
844+00	84400.00	100.00	158.6	64.25	1.89	0.00	613.72	237.96	14.11	0.00	15012.21	1102.01	0.00	0.00	0.00	8184.21
845+00	84500.00	100.00	142.34	64.25	1.5	0.00	557.30	237.96	6.28	0.00	15569.51	1109.86	0.00	0.00	0.00	8495.70
846+00	84600.00	100.00	134.29	64.25	3.9	0.00	512.28	237.96	10.00	0.00	16081.78	1122.36	0.00	0.00	0.00	8757.51
847+00	84700.00	100.00	123.42	64.25	7.36	0.00	477.24	237.96	20.85	0.00	16559.03	1148.43	0.00	0.00	0.00	8970.73
848+00	84800.00	100.00	198.12	64.25	7.84	0.00	595.44	237.96	28.15	0.00	17154.47	1183.61	0.00	0.00	0.00	9293.02
849+00	84900.00	100.00	94.59	64.25	20.67	0.00	542.06	237.96	52.80	0.00	17696.53	1249.61	0.00	0.00	0.00	9531.12
850+00	85000.00	100.00	50.43	64.25	68.12	0.00	268.56	237.96	164.43	0.00	17965.08	1455.14	0.00	0.00	0.00	9356.18
851+00	85100.00	100.00	3.21	64.25	200.02	0.00	99.33	237.96	496.56	0.00	18064.41	2075.83	0.00	0.00	0.00	8596.86
852+00	85200.00	100.00	2.41	64.25	327.77	0.00	10.41	237.96	977.39	0.00	18074.82	3297.57	0.00	0.00	0.00	7147.56
853+00	85300.00	100.00	1.67	64.25	191.09	0.00	7.56	237.96	960.85	0.00	18082.38	4498.63	0.00	0.00	0.00	5716.09
854+00	85400.00	100.00	1.03	64.25	231.07	0.00	5.00	237.96	781.78	0.00	18087.38	5475.86	0.00	0.00	0.00	4505.91
855+00	85500.00	100.00	1	64.25	244.25	0.00	3.76	237.96	880.22	0.00	18091.14	6576.13	0.00	0.00	0.00	3171.43
856+00	85600.00	100.00	1.16	64.25	227.42	0.00	4.00	237.96	873.46	0.00	18095.14	7667.96	0.00	0.00	0.00	1845.63
857+00	85700.00	100.00	1.72	64.25	201.28		5.33	237.96	793.89	0.00	18100.47	8660.32	0.00	0.00	0.00	620.64
858+00	85800.00	100.00	2.57	64.25	149.89	0.00	7.94	237.96	650.31	0.00	18108.41	9473.22	0.00	0.00	0.00	-422.27
859+00	85900.00	100.00	3.25	64.25	122.63	0.00	10.78	237.96	504.67	0.00	18119.19	10104.05	0.00	0.00	0.00	-1280.29
860+00	86000.00	100.00	3.7	64.25	98.74	0.00	12.87	237.96	409.94	0.00	18132.06	10616.48	0.00	0.00	0.00	-2017.81
861+00 BK	86100.00	100.00	4.37	64.25	416.26	0.00	14.94	237.96	953.70	0.00	18147.01	11808.61	0.00	0.00	0.00	-3432.96
						Column totals	18147.01	9771.35	9446.89	0.00						

IH94 - SOUTHBOUND LANES

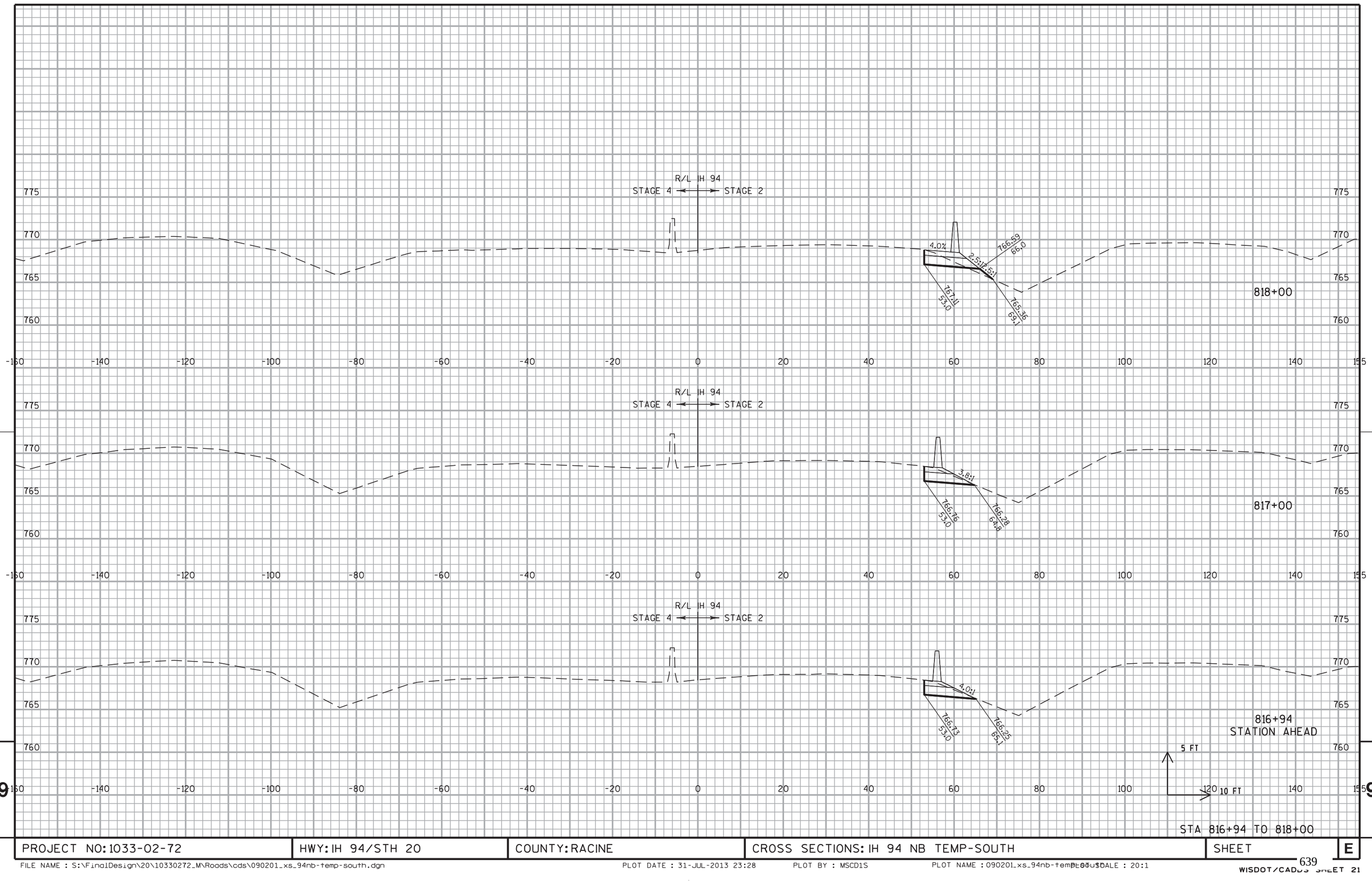
STATION		Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Reduced Marsh in Fill 0.60	Reduced EBS In Fill 0.80	Mass Ordinate
864+00	AH	86400.00		4.12	64.25	76.48	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
865+00		86500.00	100.00	3.53	64.25	105.51	0.00	14.17	237.96	337.02	0.00	14.17	421.27	0.00	0.00	0.00	-645.07
866+00		86600.00	100.00	2.80	64.25	126.33	0.00	11.72	237.96	429.33	0.00	25.89	957.94	0.00	0.00	0.00	-1407.98
867+00		86700.00	100.00	2.24	64.25	158.37	0.00	9.33	237.96	527.22	0.00	35.22	1616.97	0.00	0.00	0.00	-2295.63
868+00		86800.00	100.00	1.91	64.25	191.56	0.00	7.69	237.96	648.02	0.00	42.91	2426.99	0.00	0.00	0.00	-3335.94
869+00		86900.00	100.00	1.62	64.25	227.70	0.00	6.54	237.96	776.41	0.00	49.44	3397.50	0.00	0.00	0.00	-4537.87
870+00		87000.00	100.00	0.83	64.25	266.81	0.00	4.54	237.96	915.76	0.00	53.98	4542.20	0.00	0.00	0.00	-5916.00
871+00		87100.00	100.00	1.09	64.25	261.27	0.00	3.56	237.96	977.93	0.00	57.54	5764.61	0.00	0.00	0.00	-7372.81
872+00		87200.00	100.00	1.50	64.25	227.87	0.00	4.80	237.96	905.81	0.00	62.33	6896.88	0.00	0.00	0.00	-8738.25
873+00		87300.00	100.00	2.42	64.25	165.80	0.00	7.26	237.96	729.02	0.00	69.59	7808.15	0.00	0.00	0.00	-9880.22
874+00		87400.00	100.00	509.02	64.25	275.56	0.00	947.11	237.96	817.33	0.00	1016.70	8829.81	0.00	0.00	0.00	-10192.74
875+00		87500.00	100.00	588.97	64.25	142.61	0.00	2033.31	237.96	774.39	0.00	3050.02	9797.80	0.00	0.00	0.00	-9365.38
876+00		87600.00	100.00	545.44	64.25	119.29	0.00	2100.76	237.96	485.00	0.00	5150.78	10404.05	0.00	0.00	0.00	-8108.83
877+00		87700.00	100.00	368.27	64.25	57.33	0.00	1692.06	237.96	327.07	0.00	6842.83	10812.89	0.00	0.00	0.00	-7063.58
878+00		87800.00	100.00	356.24	64.25	80.15	0.00	1341.69	237.96	254.59	0.00	8184.52	11131.13	0.00	0.00	0.00	-6278.10
879+00		87900.00	100.00	281.61	64.25	117.53	0.00	1181.20	237.96	366.07	0.00	9365.72	11588.73	0.00	0.00	0.00	-5792.45
880+00		88000.00	100.00	234.40	64.25	139.83	0.00	955.57	237.96	476.59	0.00	10321.30	12184.47	0.00	0.00	0.00	-5670.58
881+00		88100.00	100.00	310.65	64.25	27.71	0.00	1009.35	237.96	310.26	0.00	11330.65	12572.29	0.00	0.00	0.00	-5287.01
882+00		88200.00	100.00	373.69	64.25	13.28	0.00	1267.30	237.96	75.91	0.00	12597.94	12667.18	0.00	0.00	0.00	-4352.56
883+00		88300.00	100.00	404.65	64.25	0.20	0.00	1441.37	237.96	24.96	0.00	14039.31	12698.38	0.00	0.00	0.00	-3180.36
884+00		88400.00	100.00	388.40	64.25	0.07	0.00	1468.61	237.96	0.50	0.00	15507.93	12699.00	0.00	0.00	0.00	-1950.34
885+00		88500.00	100.00	310.98	64.25	22.73	0.00	1295.15	237.96	42.22	0.00	16803.07	12751.78	0.00	0.00	0.00	-945.93
886+00		88600.00	100.00	258.28	64.25	25.91	0.00	1054.19	237.96	90.07	0.00	17857.26	12864.38	0.00	0.00	0.00	-242.30
887+00		88700.00	100.00	230.95	64.25	74.91	0.00	905.98	237.96	186.70	0.00	18763.24	13097.75	0.00	0.00	0.00	192.34
888+00		88800.00	100.00	230.07	64.25	44.39	0.00	853.74	237.96	220.93	0.00	19616.98	13373.91	0.00	0.00	0.00	531.96
889+00		88900.00	100.00	237.26	64.25	33.51	0.00	865.43	237.96	144.26	0.00	20482.41	13554.24	0.00	0.00	0.00	979.10
890+00		89000.00	100.00	468.42	64.25	0.00	0.00	1306.81	237.96	62.06	0.00	21789.22	13631.81	0.00	0.00	0.00	1970.38
891+00		89100.00	100.00	250.08	64.25	14.84	0.00	1330.56	237.96	27.48	0.00	23119.78	13666.16	0.00	0.00	0.00	3028.62
892+00		89200.00	100.00	246.54	64.25	31.23	0.00	919.67	237.96	85.31	0.00	24039.44	13772.80	0.00	0.00	0.00	3603.68
893+00		89300.00	100.00	253.86	64.25	28.27	0.00	926.67	237.96	110.19	0.00	24966.11	13910.53	0.00	0.00	0.00	4154.65
894+00		89400.00	100.00	244.17	64.25	41.29	0.00	922.28	237.96	128.81	0.00	25888.39	14071.55	0.00	0.00	0.00	4677.95
895+00		89500.00	100.00	0.00	64.25	0.00	0.00	452.17	237.96	76.46	0.00	26340.56	14167.13	0.00	0.00	0.00	4796.57
896+00		89600.00	100.00	149.97	64.25	8.13	0.00	277.72	237.96	15.06	0.00	26618.28	14185.95	0.00	0.00	0.00	4817.51
897+00		89700.00	100.00	143.19	64.25	19.33	0.00	542.89	237.96	50.85	0.00	27161.17	14249.51	0.00	0.00	0.00	5058.88
898+00		89800.00	100.00	137.72	64.25	22.32	0.00	520.20	237.96	77.13	0.00	27681.37	14345.93	0.00	0.00	0.00	5244.70
899+00		89900.00	100.00	123.63	64.25	23.89	0.00	483.98	237.96	85.57	0.00	28165.35	14452.89	0.00	0.00	0.00	5383.75
900+00		90000.00	100.00	113.73	64.25	26.4	0.00	439.56	237.96	93.13	0.00	28604.91	14569.31	0.00	0.00	0.00	5468.94
901+00		90100.00	100.00	114.65	64.25	20.67	0.00	422.93	237.96	87.17	0.00	29027.83	14678.26	0.00	0.00	0.00	5544.94
902+00		90200.00	100.00	28.93	64.25	13.55	0.00	265.89	237.96	63.37	0.00	29293.72	14757.48	0.00	0.00	0.00	5493.65
902+92	BK	90291.51	91.51	10.76	64.25	0	0.00	67.26	217.76	22.96	0.00	29360.98	14786.18	0.00	0.00	0.00	5314.45
								Column totals		29360.98	9260.35	11828.94	0.00				

RAMP NW

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced Marsh in Fill 0.60	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate
864+96 AH	86496.49		90.99	12.33	0.27	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
865+00	86500.00	3.51	62.81	12.33	373.73	0.00	10.00	1.60	24.31	0.00	10.00	30.39	0.00	0.00	0.00	-21.99
865+50	86550.00	50.00	37.8	12.33	383.94	0.00	93.16	22.84	701.55	0.00	103.15	907.32	0.00	0.00	0.00	-828.61
866+00	86600.00	50.00	5.56	12.33	417.27	0.00	40.15	22.84	741.86	0.00	143.30	1834.65	0.00	0.00	0.00	-1738.63
866+50	86650.00	50.00	12.08	12.33	518.44	0.00	16.33	22.84	866.40	0.00	159.64	2917.64	0.00	0.00	0.00	-2828.13
867+00	86700.00	50.00	2.56	12.33	642.68	0.00	13.56	22.84	1075.11	0.00	173.19	4261.53	0.00	0.00	0.00	-4181.30
867+50	86750.00	50.00	0	12.33	773.76	0.00	2.37	22.84	1311.52	0.00	175.56	5900.93	0.00	0.00	0.00	-5841.17
868+00	86800.00	50.00	0.08	12.33	855.73	0.00	0.07	22.84	1508.79	0.00	175.64	7786.92	0.00	0.00	0.00	-7749.92
868+50	86850.00	50.00	0.75	12.33	909.55	0.00	0.77	22.84	1634.52	0.00	176.40	9830.06	0.00	0.00	0.00	-9815.14
868+51	86851.27	1.27	0.75	12.33	909.8	0.00	0.04	0.58	42.79	0.00	176.44	9883.55	0.00	0.00	0.00	-9869.17
869+00	86900.00	48.73	0.42	12.33	913.8	0.00	1.06	22.26	1645.63	0.00	177.50	11940.59	0.00	0.00	0.00	-11947.41
869+50	86950.00	50.00	13.61	12.33	913.45	0.00	12.99	22.84	1691.90	0.00	190.49	14055.46	0.00	0.00	0.00	-14072.13
870+00	87000.00	50.00	55.87	12.33	934.5	0.00	64.33	22.84	1711.06	0.00	254.82	16194.29	0.00	0.00	0.00	-16169.47
870+50	87050.00	50.00	93.89	12.33	933.71	0.00	138.67	22.84	1729.82	0.00	393.49	18356.57	0.00	0.00	0.00	-18215.92
871+00	87100.00	50.00	125.09	12.33	891.78	0.00	202.76	22.84	1690.27	0.00	596.25	20469.41	0.00	0.00	0.00	-20148.84
871+50	87150.00	50.00	156.55	12.33	842.44	0.00	260.78	22.84	1605.76	0.00	857.02	22476.61	0.00	0.00	0.00	-21918.10
872+00	87200.00	50.00	205.19	12.33	762.31	0.00	334.94	22.84	1485.88	0.00	1191.97	24333.95	0.00	0.00	0.00	-23463.34
872+50	87250.00	50.00	264.27	12.33	652.87	0.00	434.69	22.84	1310.35	0.00	1626.65	25971.89	0.00	0.00	0.00	-24689.44
873+00	87300.00	50.00	433.88	12.33	533.36	0.00	646.44	22.84	1098.36	0.00	2273.09	27344.85	0.00	0.00	0.00	-25438.79
873+50 BK	87350.00	50.00	415.83	12.33	366	0.00	786.77	22.84	832.74	0.00	3059.86	28385.77	0.00	0.00	0.00	-25715.79
Column totals							3059.86	389.87	22708.62	0.00						

RAMP SW

STATION		Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged/ Unusable Pavement Material	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Salvaged/Unusable Pavement Material	Incremental Vol (CY) (Unadjusted) Fill	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30	Cumulative Vol (CY) Reduced Marsh in Fill 0.60	Cumulative Vol (CY) Reduced EBS In Fill 0.80	Mass Ordinate
852+17	AH	85216.66		0	12.33	186.54	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
852+50		85250.00	33.34	3.07	12.33	241.44	0.00	1.90	15.23	264.24	0.00	1.90	330.30	0.00	0.00	0.00	-343.63
853+00		85300.00	50.00	0	12.33	364.59	0.00	2.84	22.84	561.14	0.00	4.74	1031.72	0.00	0.00	0.00	-1065.05
853+50		85350.00	50.00	3.71	12.33	413.88	0.00	3.44	22.84	720.81	0.00	8.17	1932.73	0.00	0.00	0.00	-1985.46
854+00		85400.00	50.00	10.33	12.33	471.67	0.00	13.00	22.84	819.95	0.00	21.17	2957.67	0.00	0.00	0.00	-3020.24
854+50		85450.00	50.00	27.07	12.33	524.42	0.00	34.63	22.84	922.31	0.00	55.80	4110.55	0.00	0.00	0.00	-4161.34
855+00		85500.00	50.00	6.42	12.33	551.64	0.00	31.01	22.84	996.35	0.00	86.81	5355.99	0.00	0.00	0.00	-5398.61
855+50		85550.00	50.00	12.58	12.33	613.88	0.00	17.59	22.84	1079.19	0.00	104.40	6704.97	0.00	0.00	0.00	-6752.84
856+00		85600.00	50.00	22.87	12.33	665.74	0.00	32.82	22.84	1184.83	0.00	137.23	8186.02	0.00	0.00	0.00	-8223.89
856+50		85650.00	50.00	39.96	12.33	705.08	0.00	58.18	22.84	1269.28	0.00	195.40	9772.61	0.00	0.00	0.00	-9775.15
857+00		85700.00	50.00	35.91	12.33	733.31	0.00	70.25	22.84	1331.84	0.00	265.65	11437.42	0.00	0.00	0.00	-11392.55
857+50		85750.00	50.00	23.78	12.33	732.45	0.00	55.27	22.84	1357.19	0.00	320.92	13133.90	0.00	0.00	0.00	-13056.60
858+00		85800.00	50.00	51.76	12.33	682.8	0.00	69.94	22.84	1310.42	0.00	390.87	14771.92	0.00	0.00	0.00	-14647.51
858+50		85850.00	50.00	23.24	12.33	618.81	0.00	69.44	22.84	1205.19	0.00	460.31	16278.41	0.00	0.00	0.00	-16107.40
858+57		85856.90	6.90	34.02	12.33	603.18	0.00	7.32	3.15	156.14	0.00	467.63	16473.59	0.00	0.00	0.00	-16298.42
859+00		85900.00	43.10	7.23	12.33	382.74	0.00	32.92	19.69	786.91	0.00	500.55	17457.23	0.00	0.00	0.00	-17268.82
859+50		85950.00	50.00	32.73	12.33	352.27	0.00	37.00	22.84	680.56	0.00	537.55	18307.93	0.00	0.00	0.00	-18105.36
860+00		86000.00	50.00	65.07	12.33	342.07	0.00	90.56	22.84	642.91	0.00	628.11	19111.57	0.00	0.00	0.00	-18841.28
860+38	BK	86038.20	38.20	80	12.33	0	0.00	102.62	17.45	241.98	0.00	730.73	19414.05	0.00	0.00	0.00	-19058.59
								Column totals	730.73	375.27	15531.24	0.00					



9

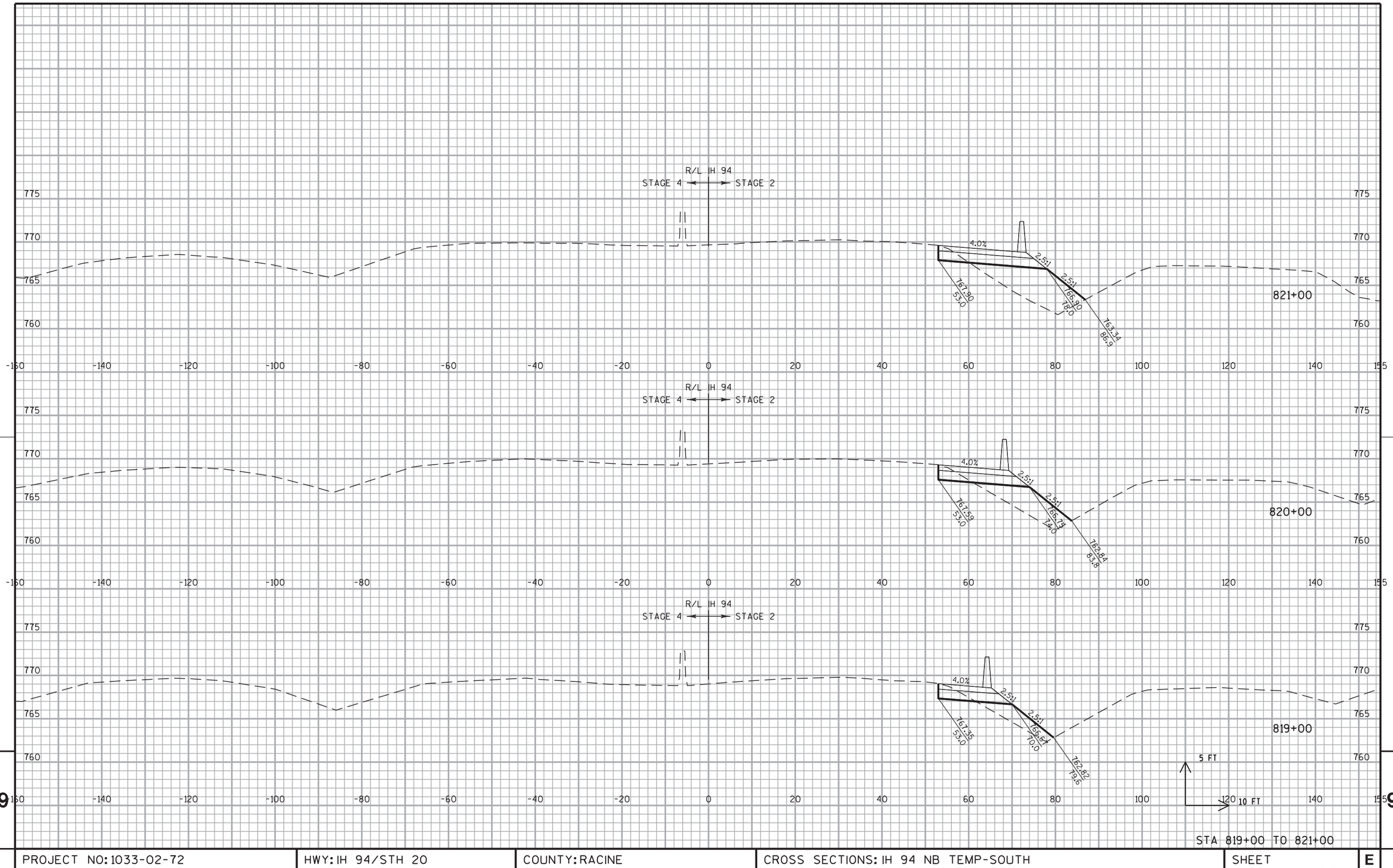
9

STA 816+94 TO 818+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB TEMP-SOUTH	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090201_xs_94nb-temp-south.dgn PLOT DATE : 31-JUL-2013 23:28 PLOT BY : MSCD1S PLOT NAME : 090201_xs_94nb-temp-south.dgn PLOT SCALE : 20:1

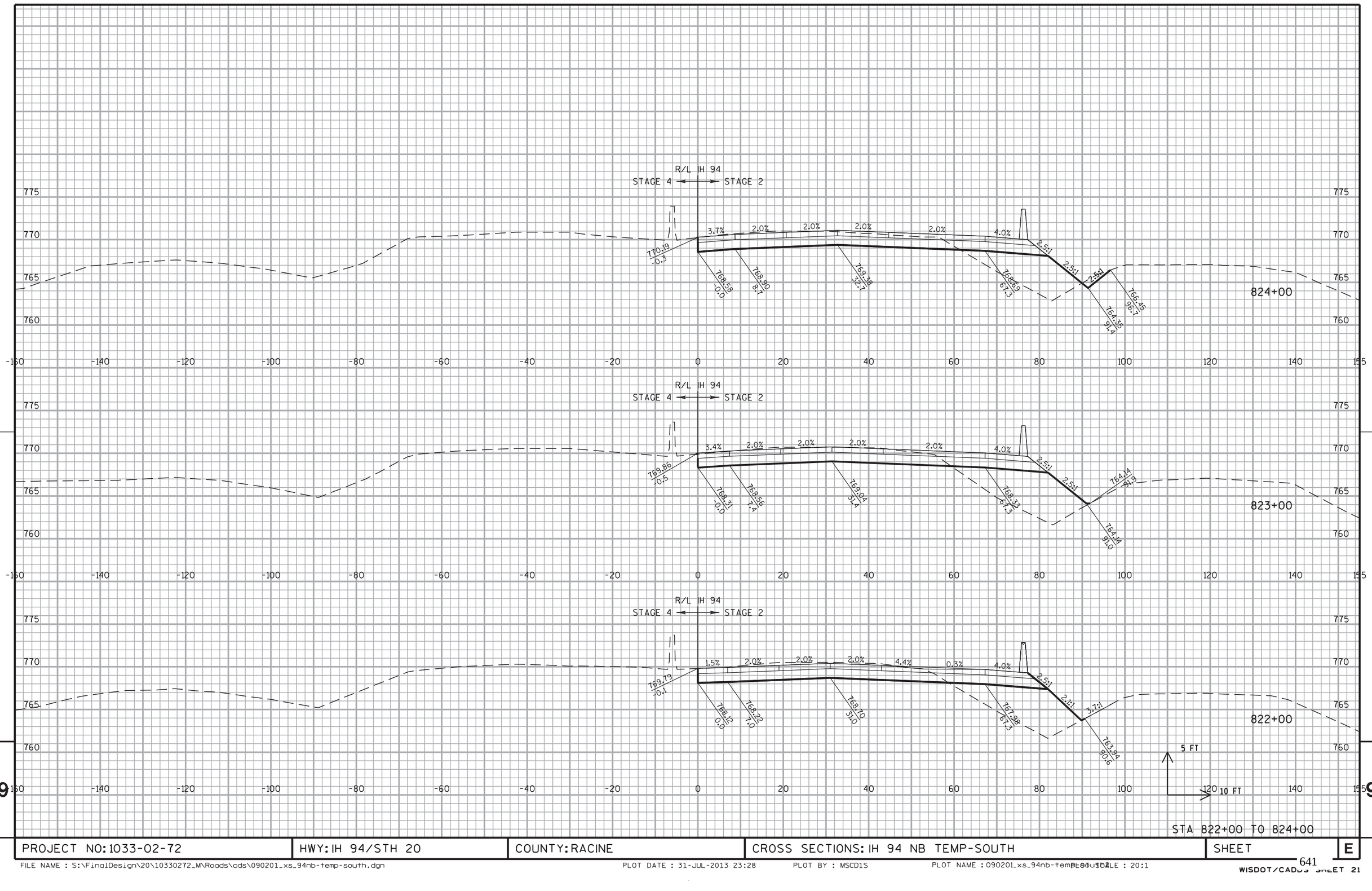
WISDOT/CADDS SHEET 21



STA 819+00 TO 821+00

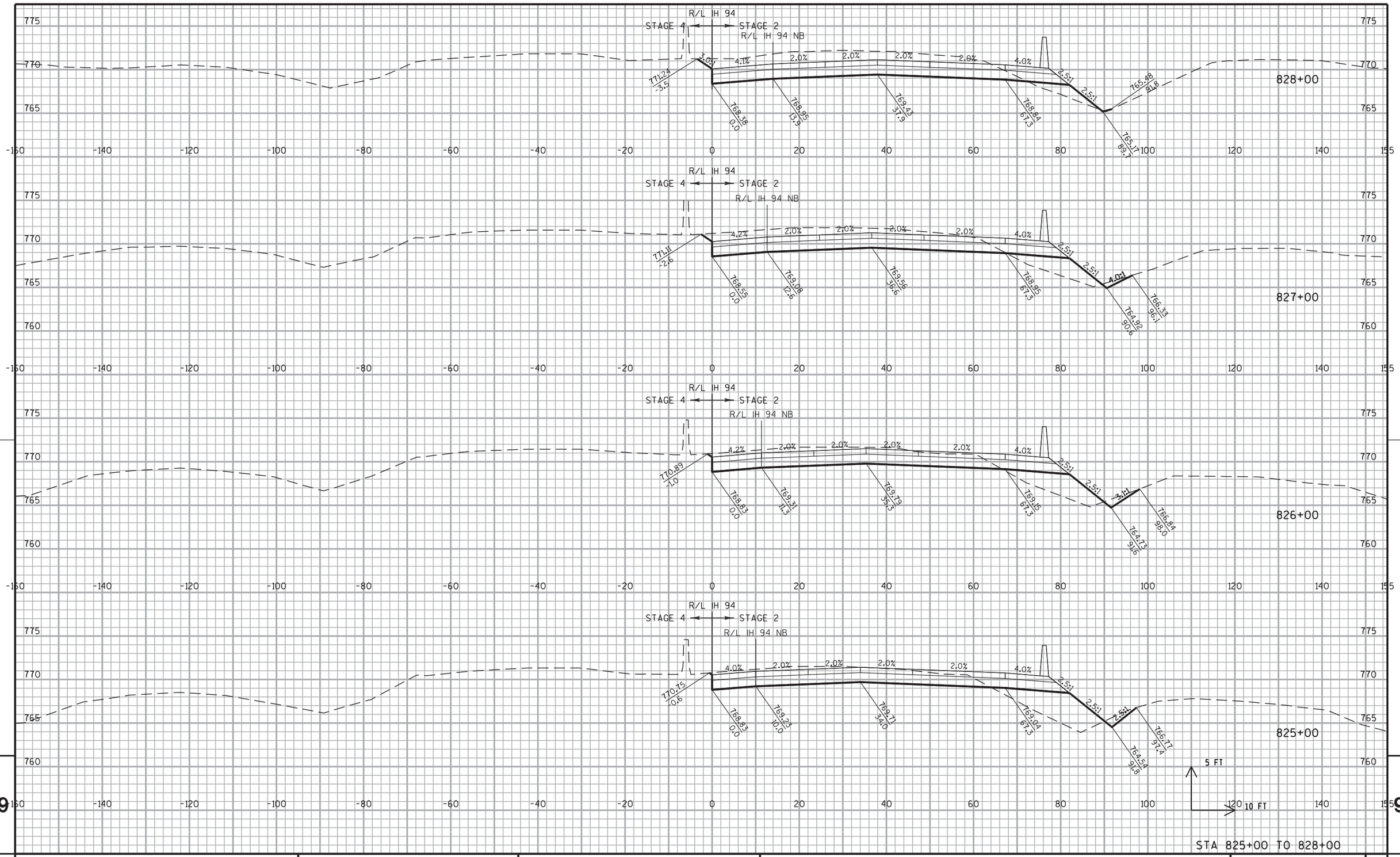
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB TEMP-SOUTH	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090201_xs_94nb-temp-south.dgn
PLOT DATE : 31-JUL-2013 23:28
PLOT BY : MSCD1S
PLOT NAME : 090201_xs_94nb-temp-south.dgn
PLOT SCALE : 20:1



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB TEMP-SOUTH	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090201_xs_94nb-temp-south.dgn PLOT DATE : 31-JUL-2013 23:28 PLOT BY : MSCD1S PLOT NAME : 090201_xs_94nb-temp-south.dgn PLOT SCALE : 20:1



STA 825+00 TO 828+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB TEMP-SOUTH	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090201_xs_94nb-temp-south.dgn
PLOT DATE : 31-JUL-2013 23:28
PLOT BY : MSCD1S
PLOT NAME : 090201_xs_94nb-temp-south.dgn
PLOT SCALE : 20:1

STA 829+00 TO 831+00

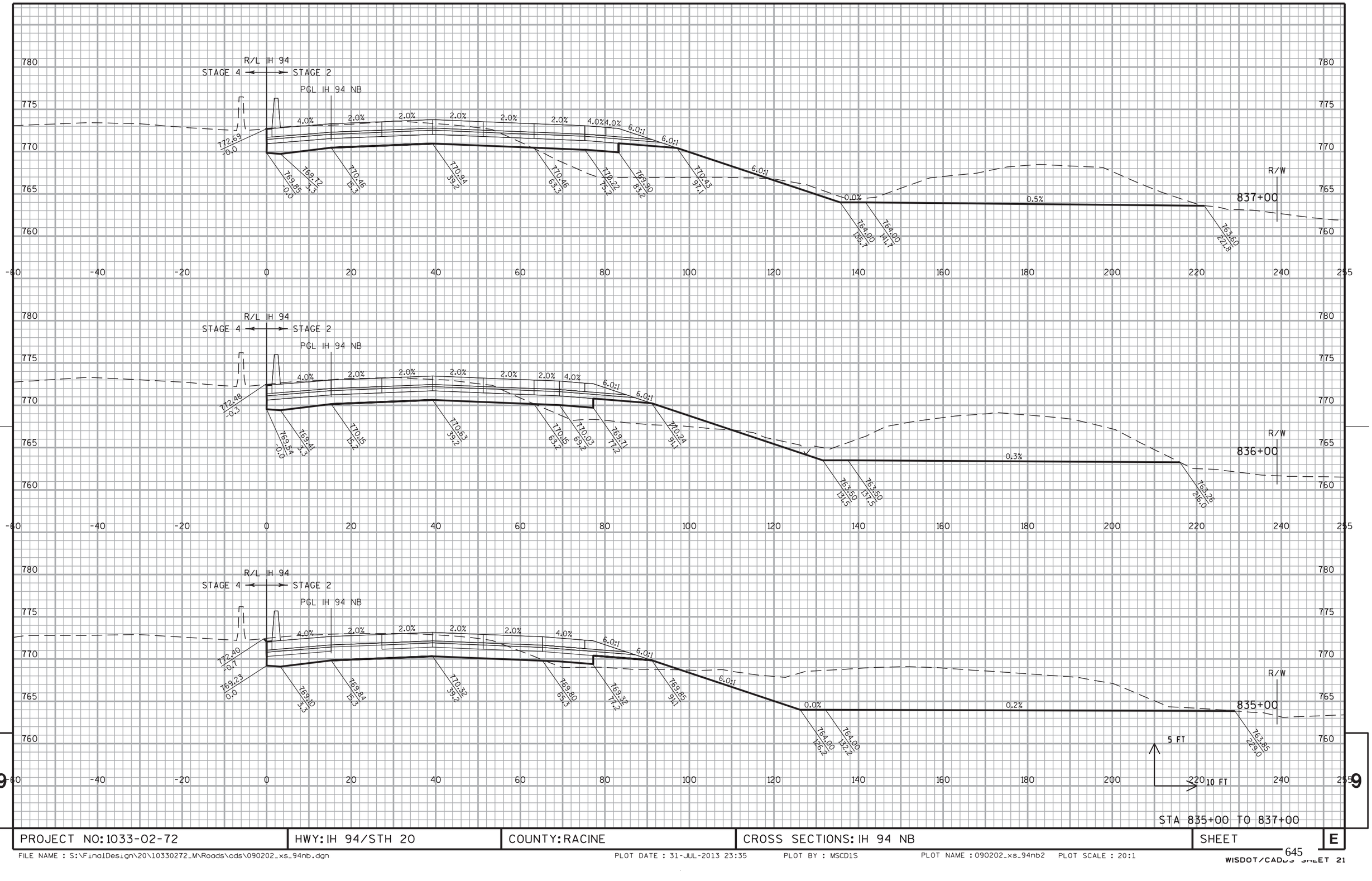
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090202_xs_94nb.dgn PLOT DATE : 31-JUL-2013 23:30 PLOT BY : MSCD1S PLOT NAME : 090202_xs_94nb PLOT SCALE : 20:1

STA 832+00 TO 834+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090202_xs_94nb.dgn PLOT DATE : 31-JUL-2013 23:33 PLOT BY : MSCD1S PLOT NAME : 090202_xs_94nb1 PLOT SCALE : 20:1

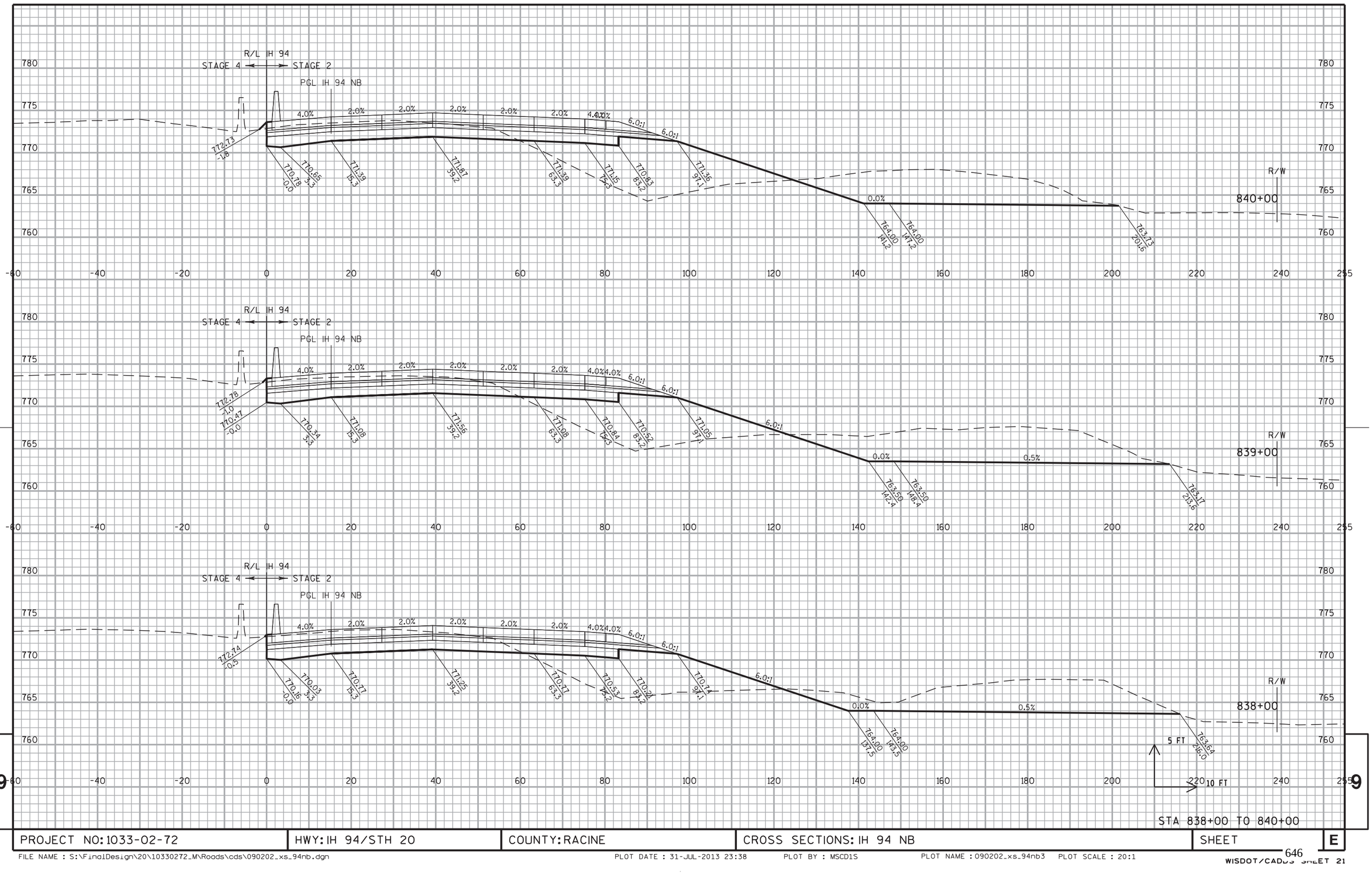


STA 835+00 TO 837+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

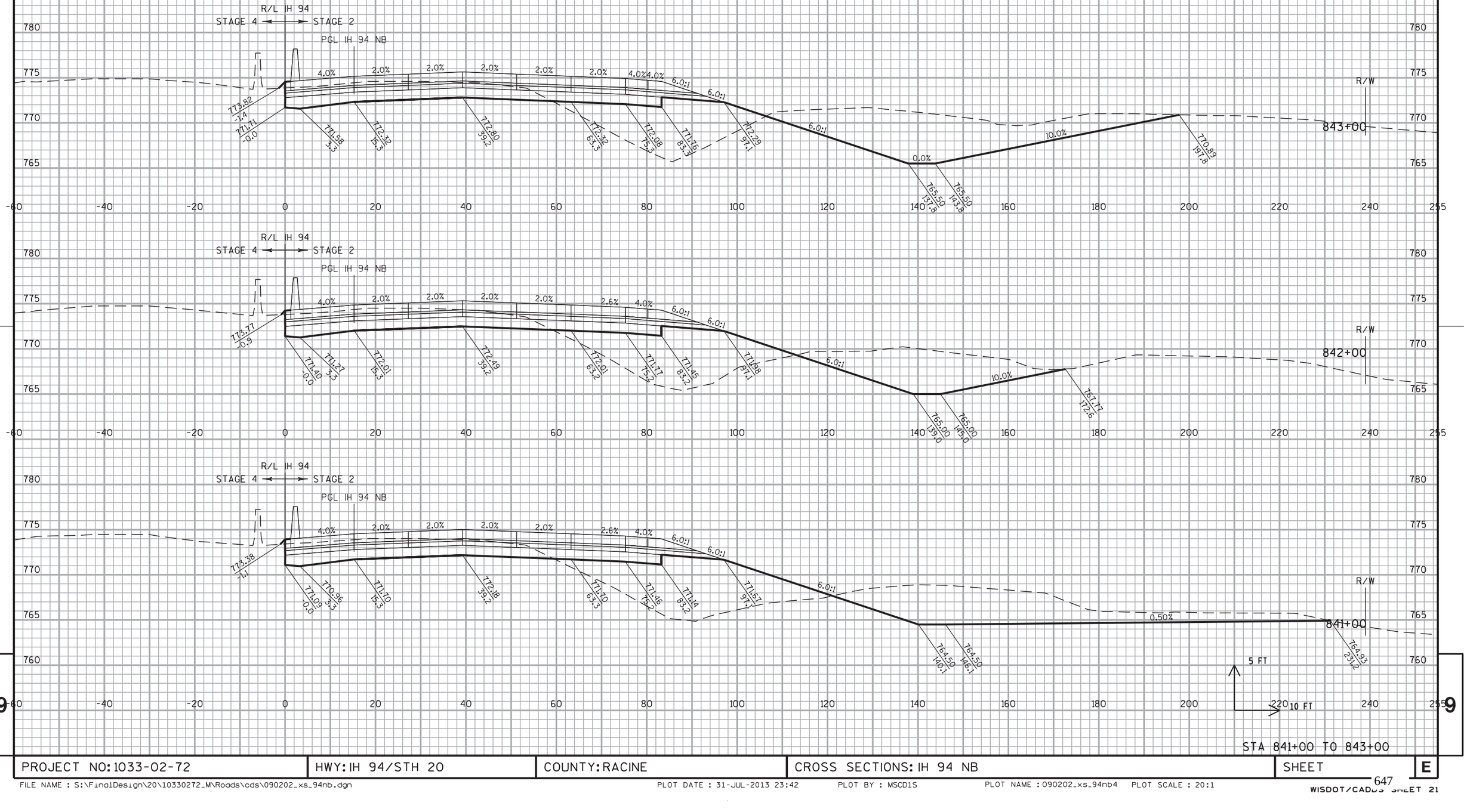
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WISDOT/CADDS SHEET 21



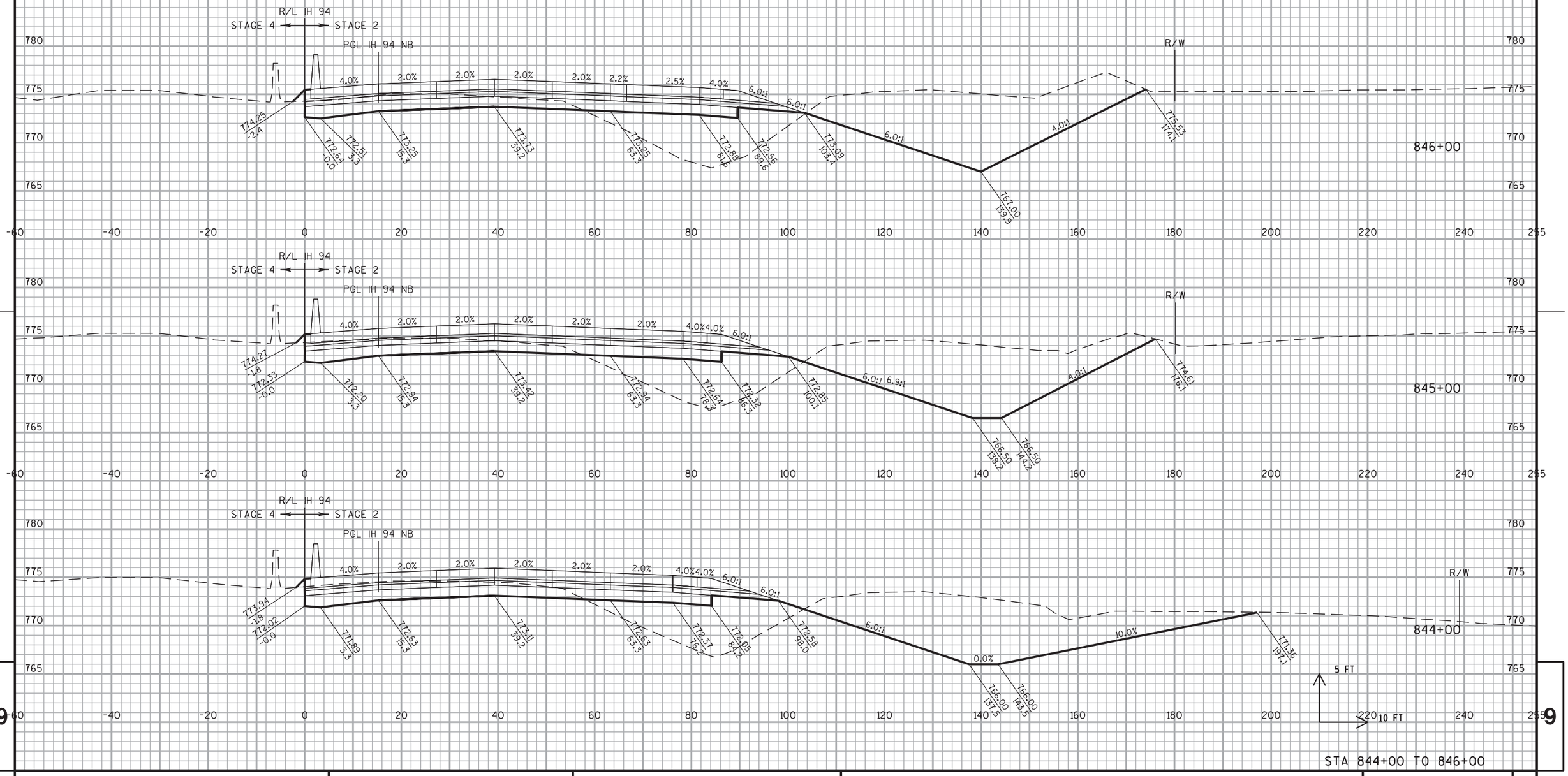
STA 838+00 TO 840+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

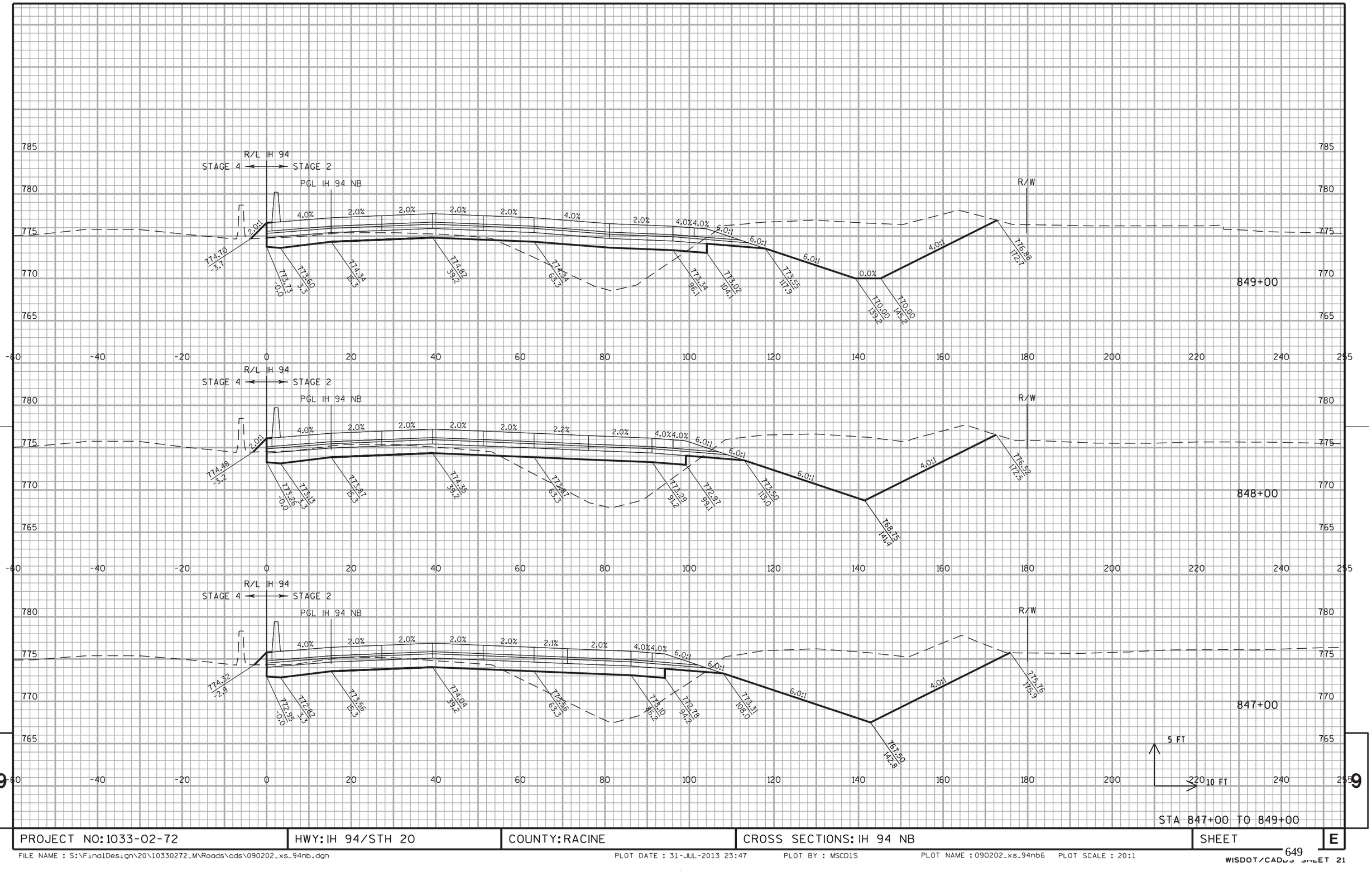
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STA 844+00 TO 846+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090202_xs_94nb.dgn PLOT DATE : 31-JUL-2013 23:45 PLOT BY : MSCD1S PLOT NAME : 090202_xs_94nb5 PLOT SCALE : 20:1



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

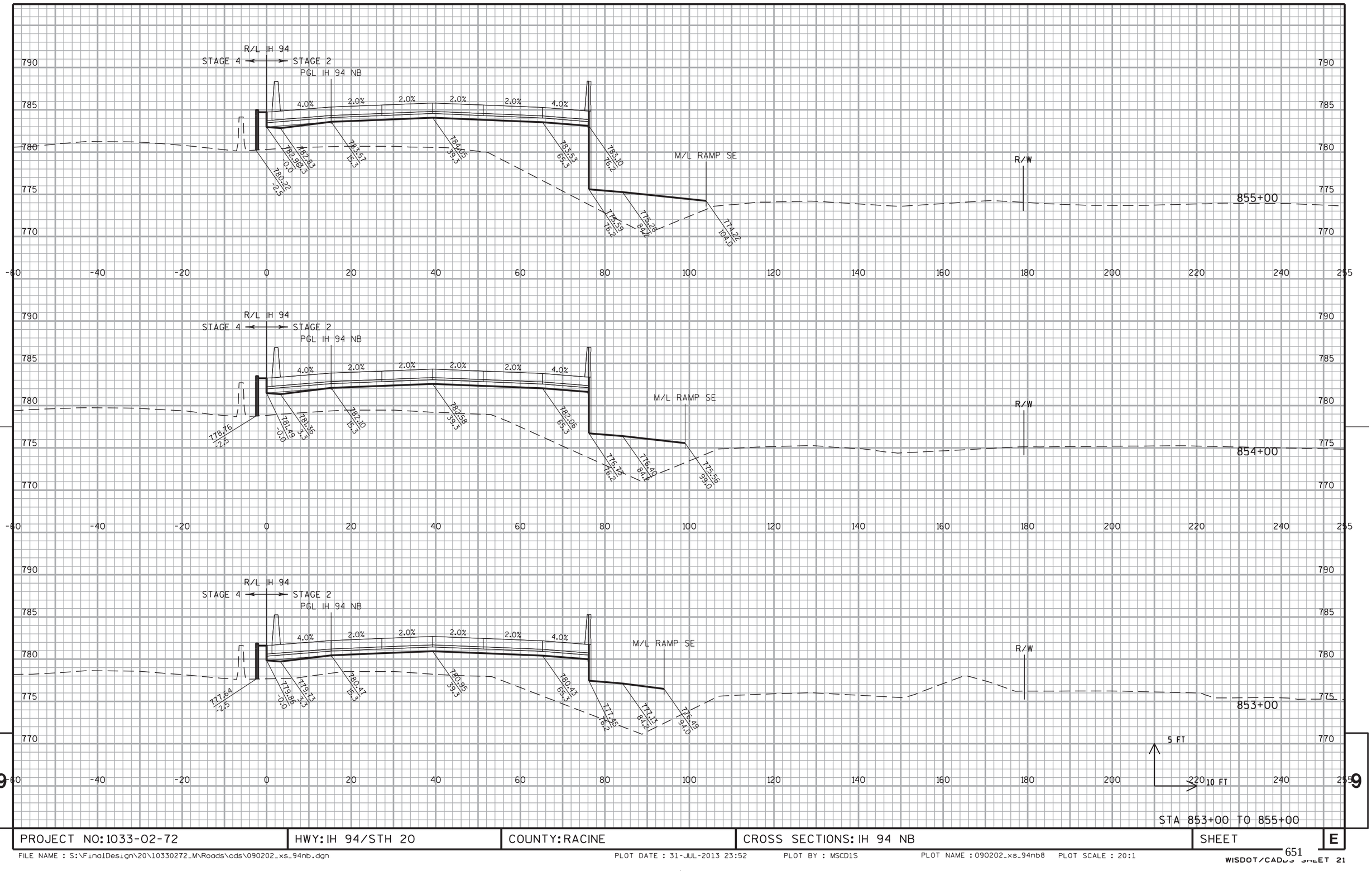
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STA 850+00 TO 852+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090202_xs_94nb.dgn PLOT DATE : 31-JUL-2013 23:49 PLOT BY : MSCD1S PLOT NAME : 090202_xs_94nb7 PLOT SCALE : 20:1

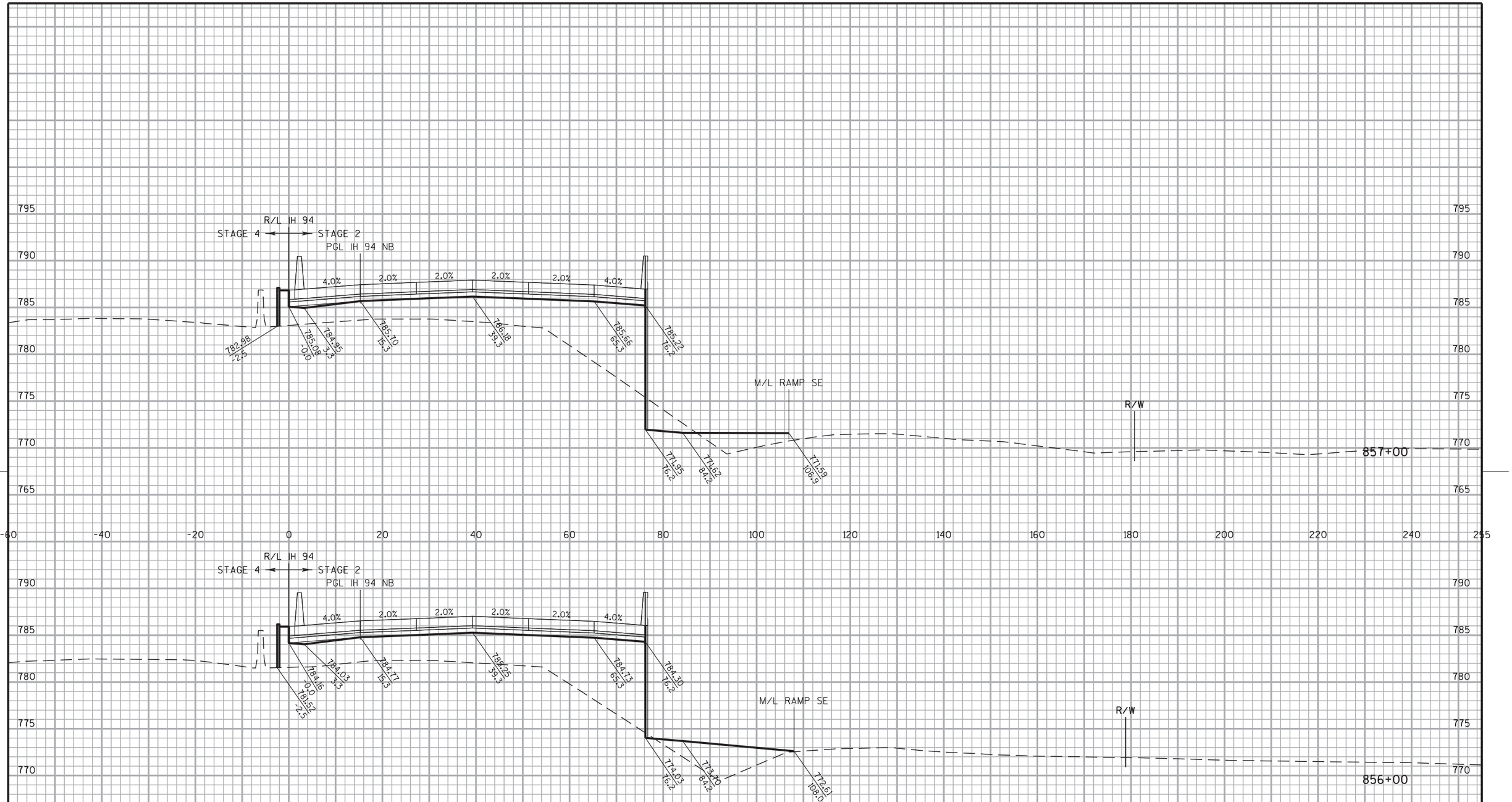
WISDOT/CADDS SHEET 21



STA 853+00 TO 855+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

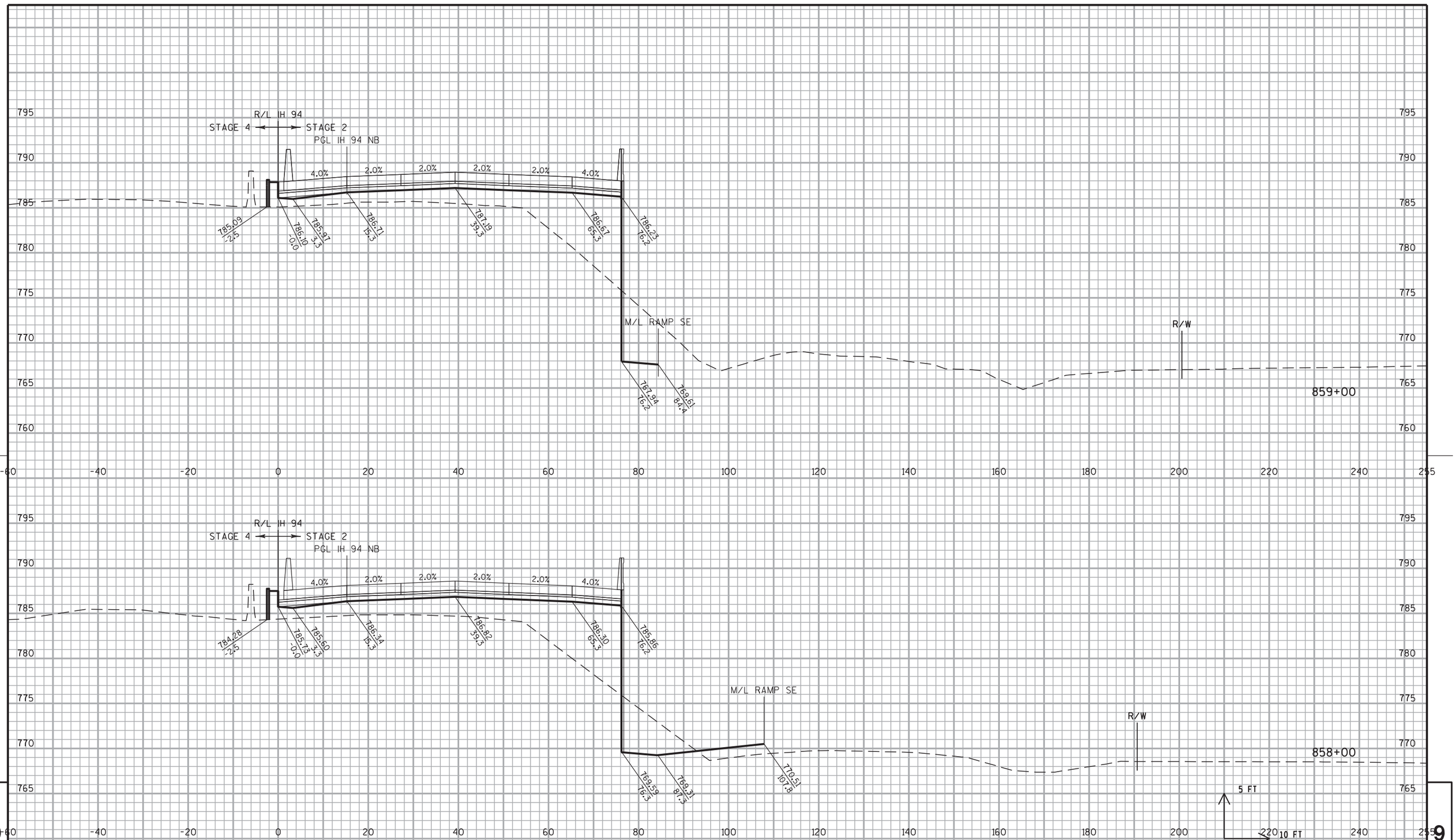
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STA 856+00 TO 857+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

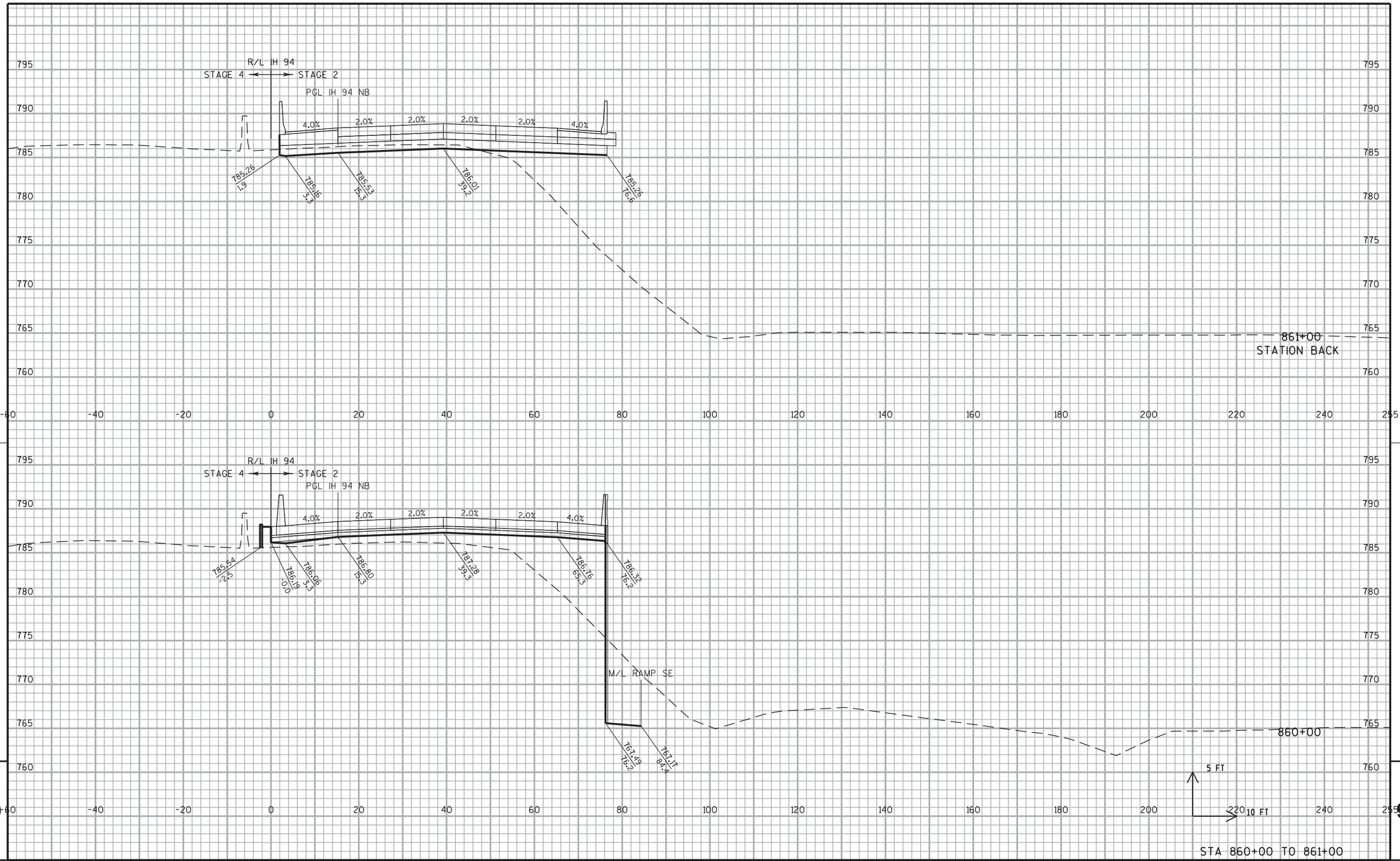
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

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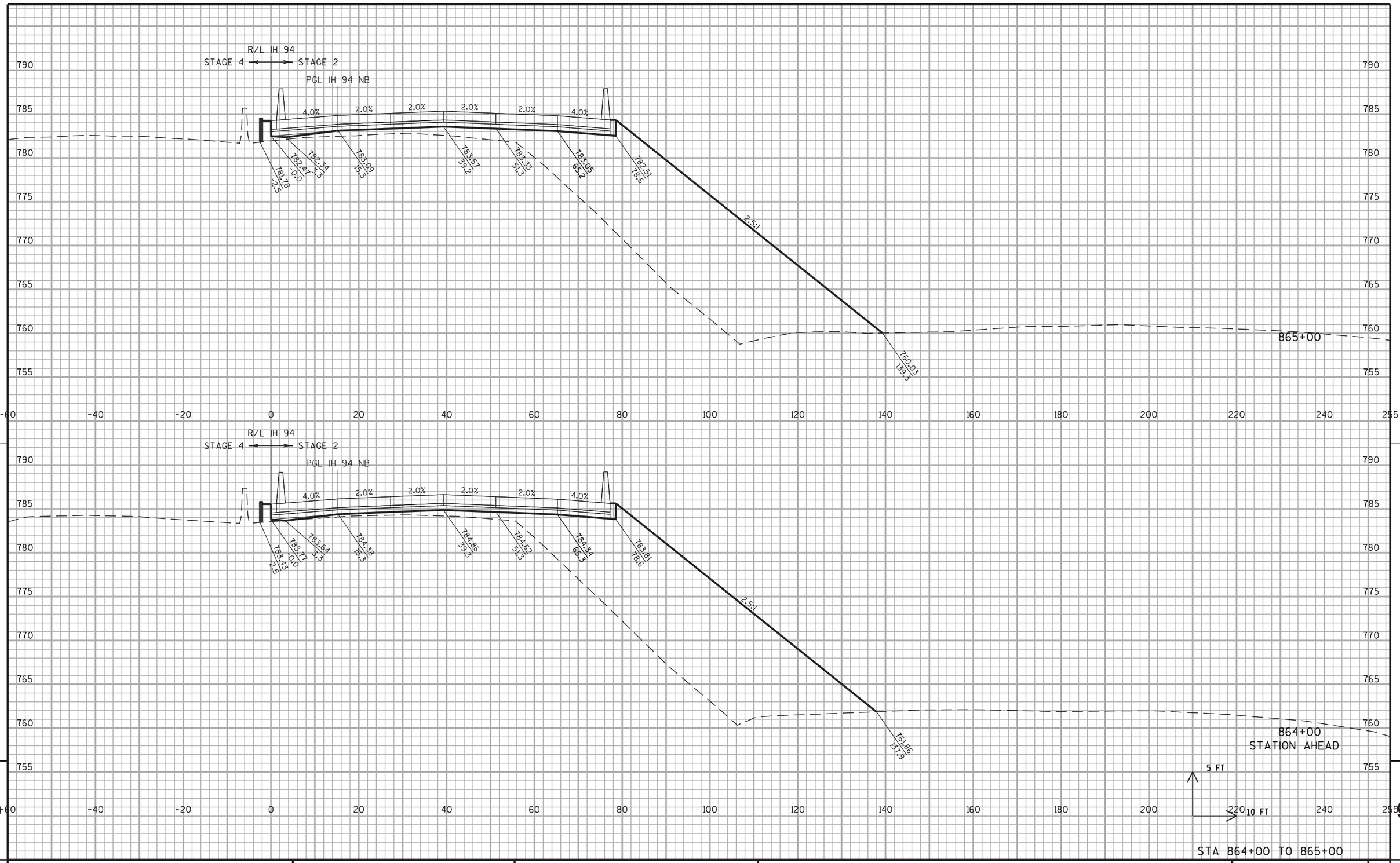
WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090202_xs_94nb.dgn PLOT DATE : 01-AUG-2013 00:01 PLOT BY : MSCD1S PLOT NAME : 090202_xs_94nb11 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

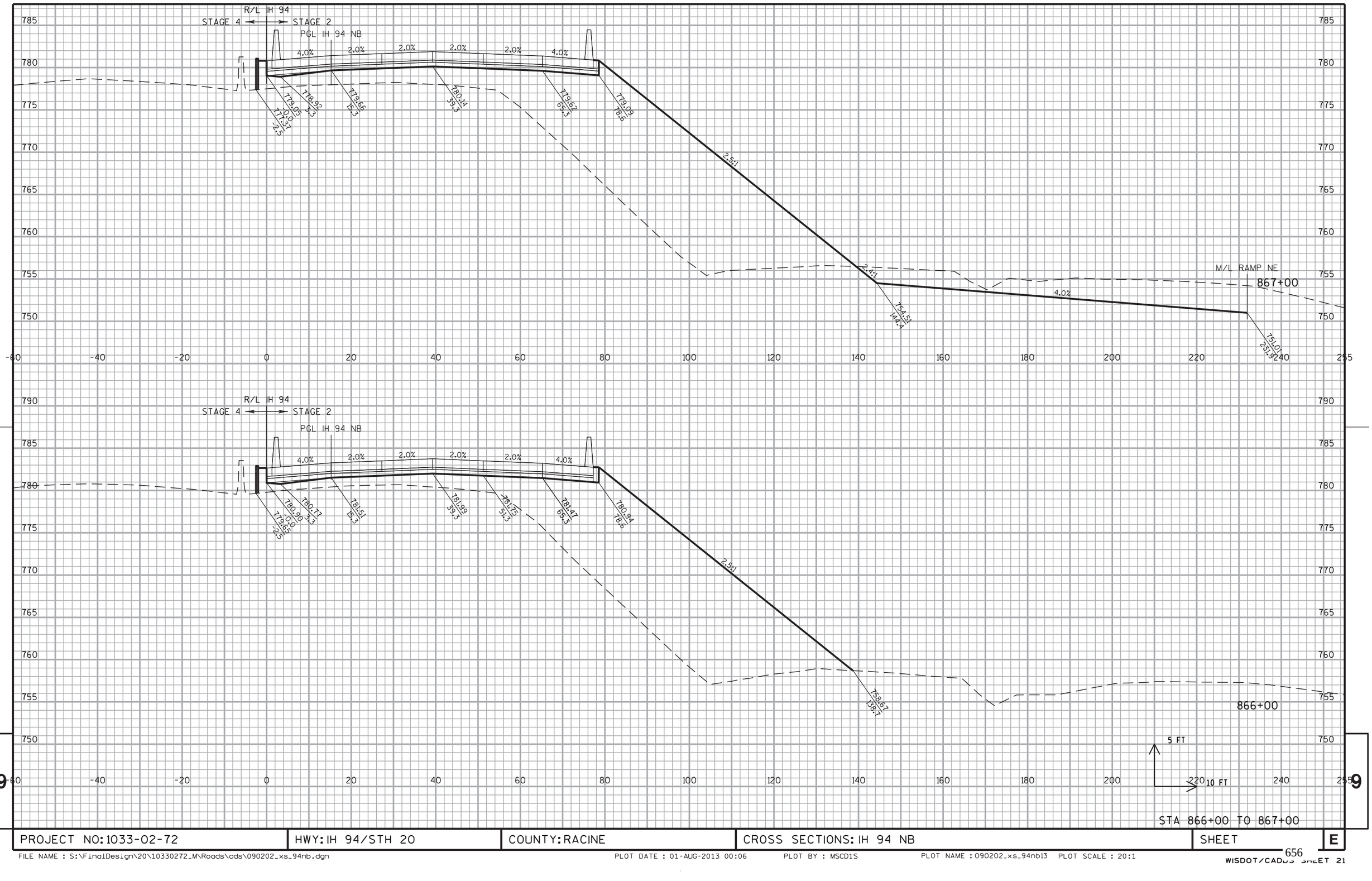


STA 864+00 TO 865+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

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WISDOT/CADDS SHEET 21

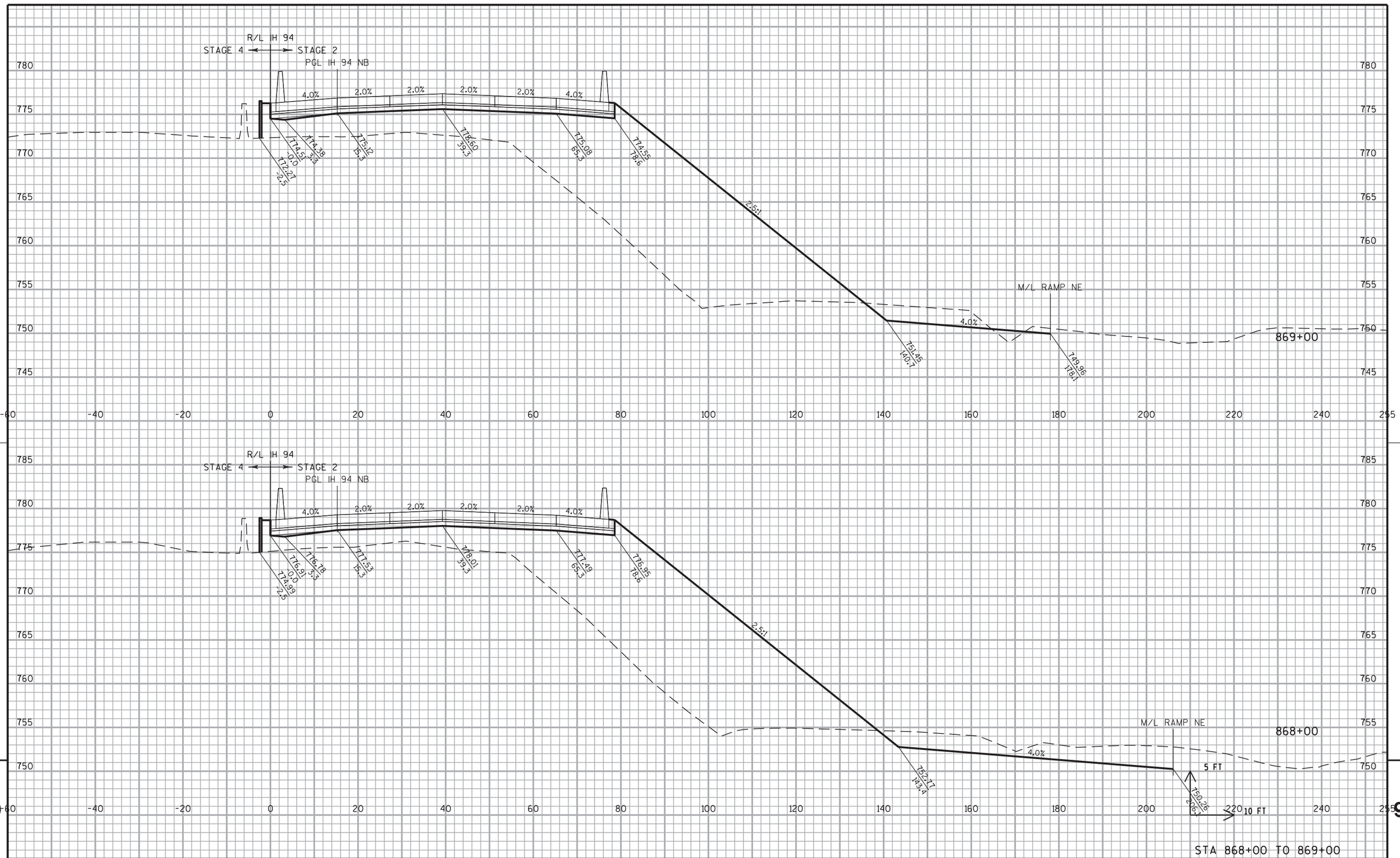


STA 866+00 TO 867+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

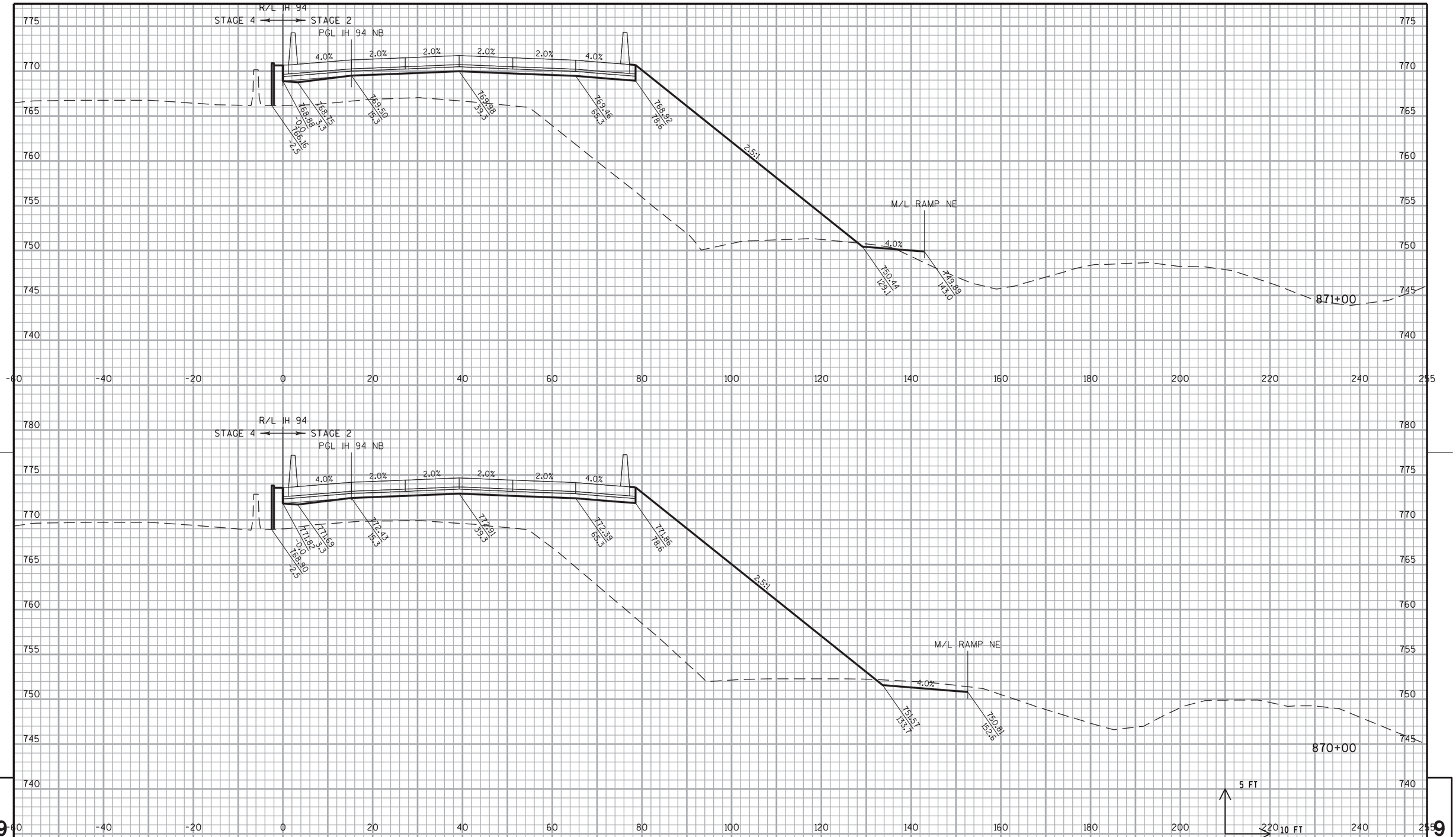
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WISDOT/CADDS SHEET 21

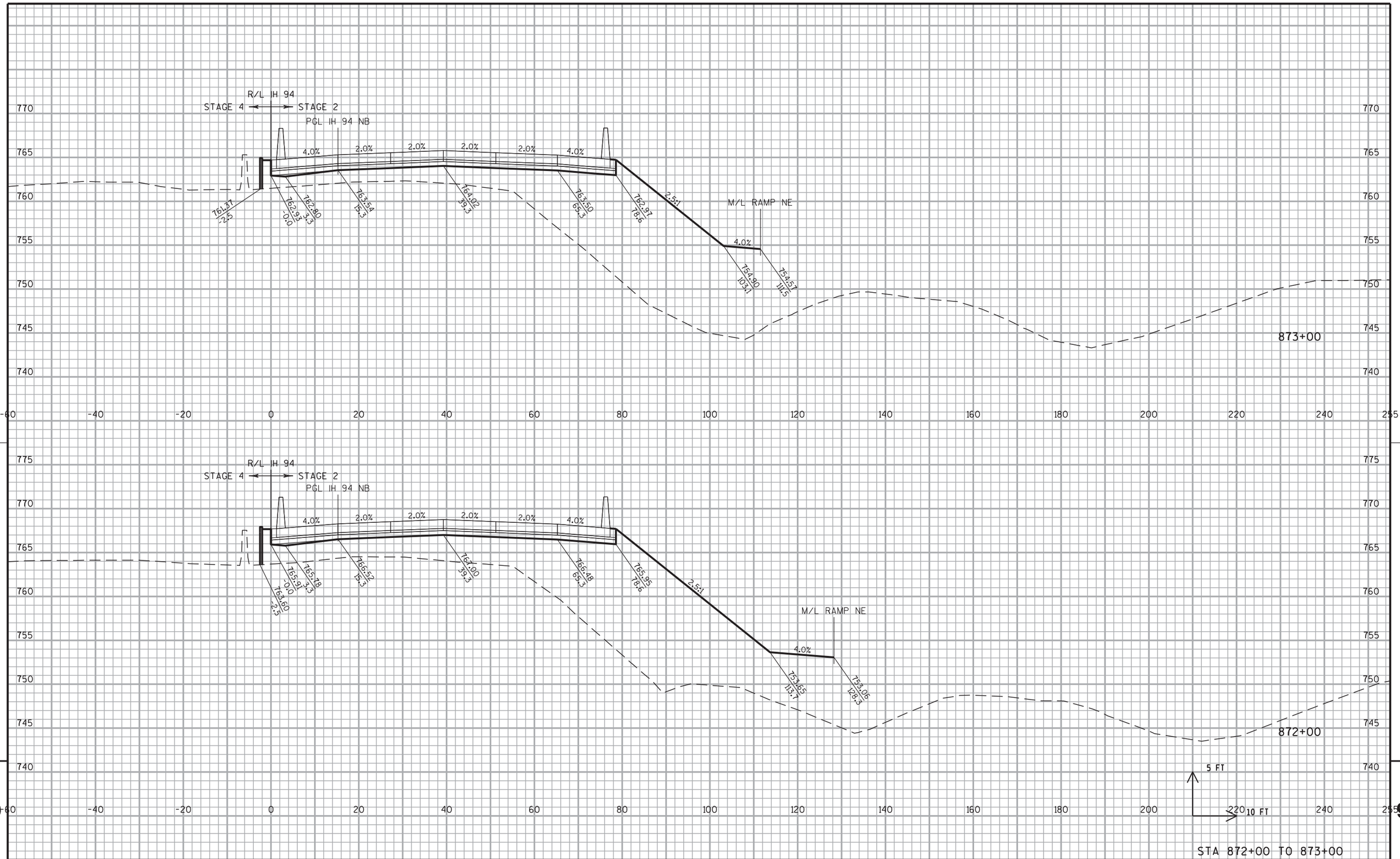


PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090202_xs_94nb.dgn PLOT DATE : 01-AUG-2013 00:08 PLOT BY : MSCD1S PLOT NAME : 090202_xs_94nb14 PLOT SCALE : 20:1



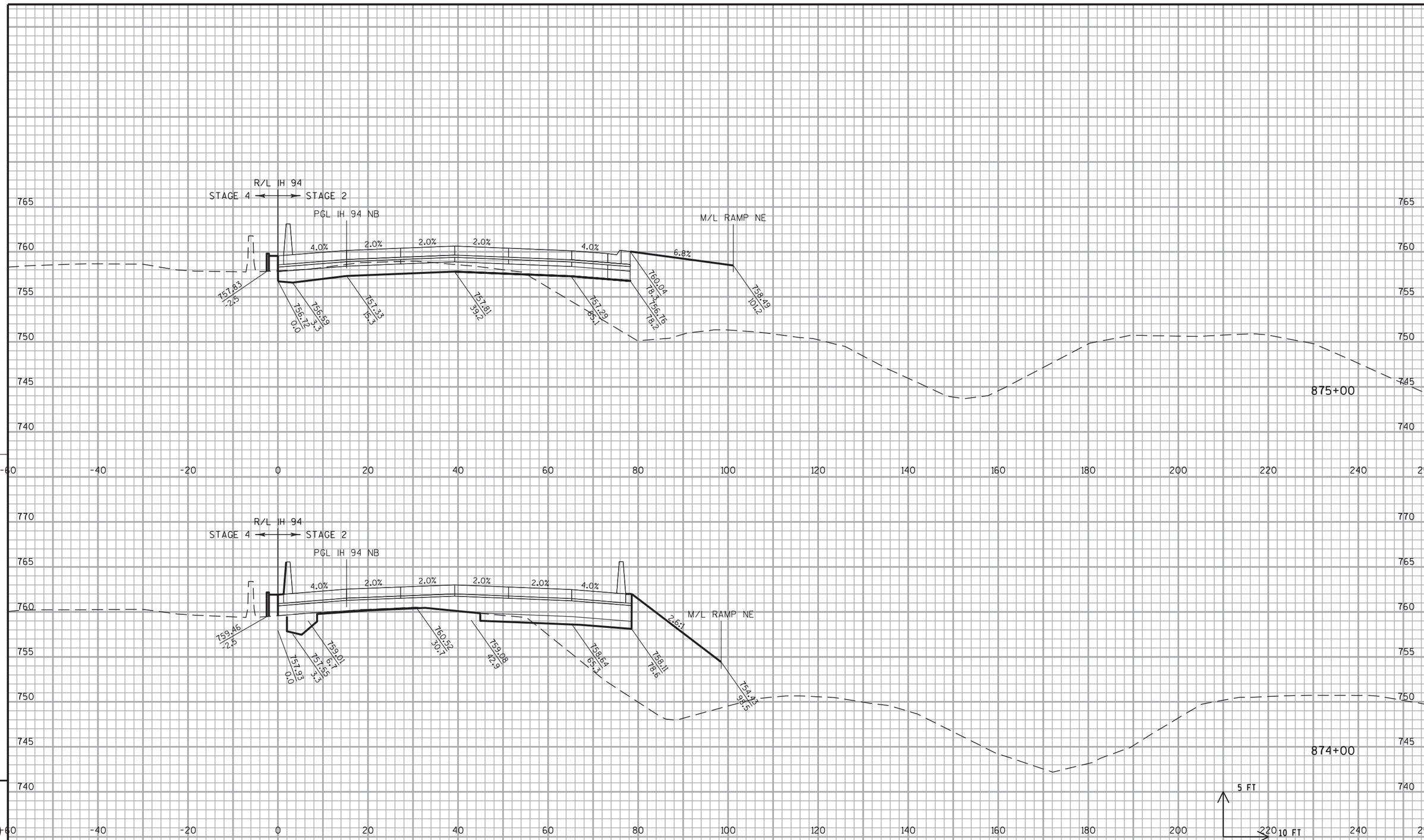
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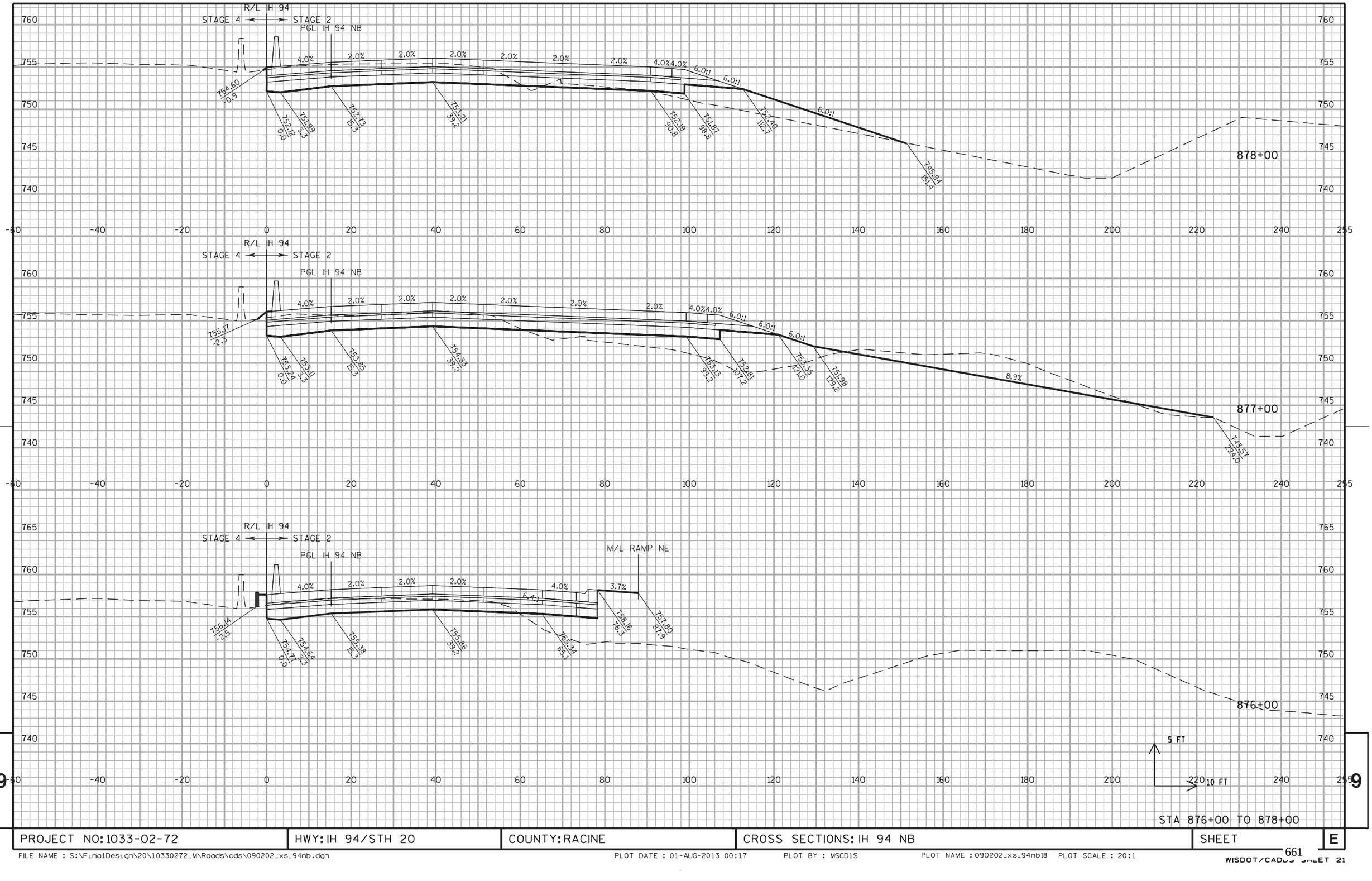
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090202_xs_94nb.dgn PLOT DATE : 01-AUG-2013 00:13 PLOT BY : MSCD1S PLOT NAME : 090202_xs_94nb16 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



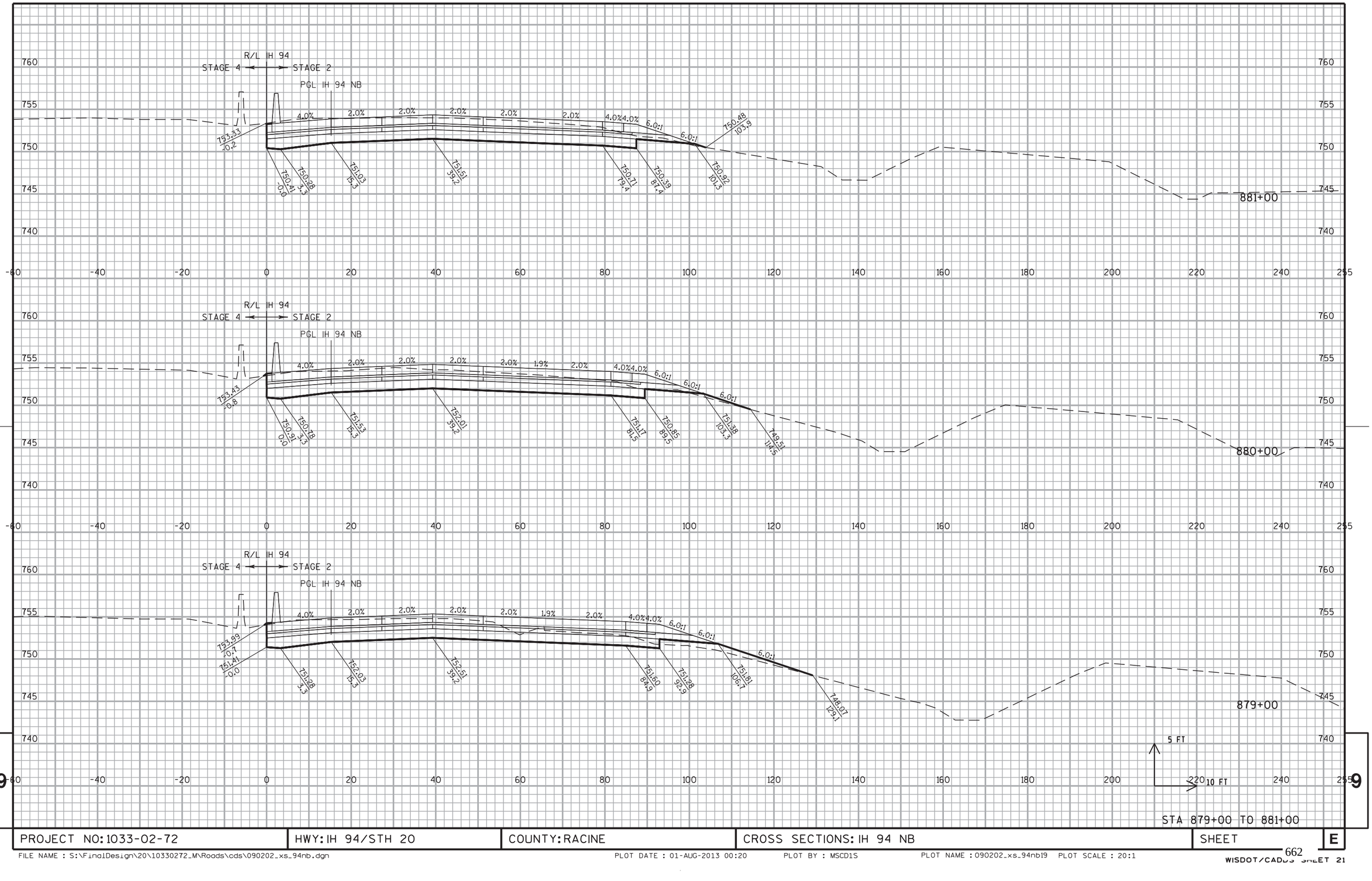
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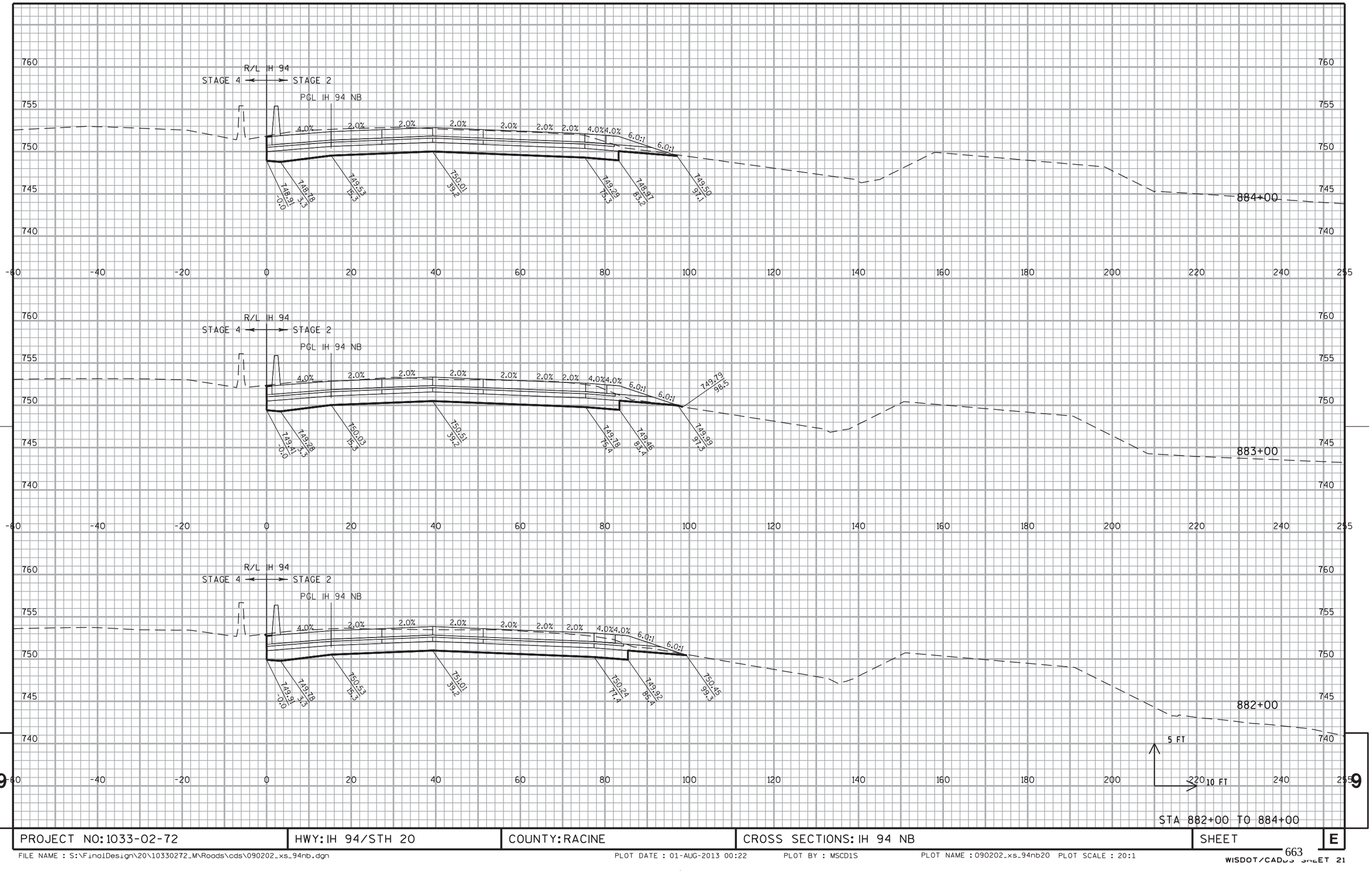
STA 876+00 TO 878+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090202_xs_94nb.dgn PLOT DATE : 01-AUG-2013 00:17 PLOT BY : MSCD1S PLOT NAME : 090202_xs_94nb18 PLOT SCALE : 20:1

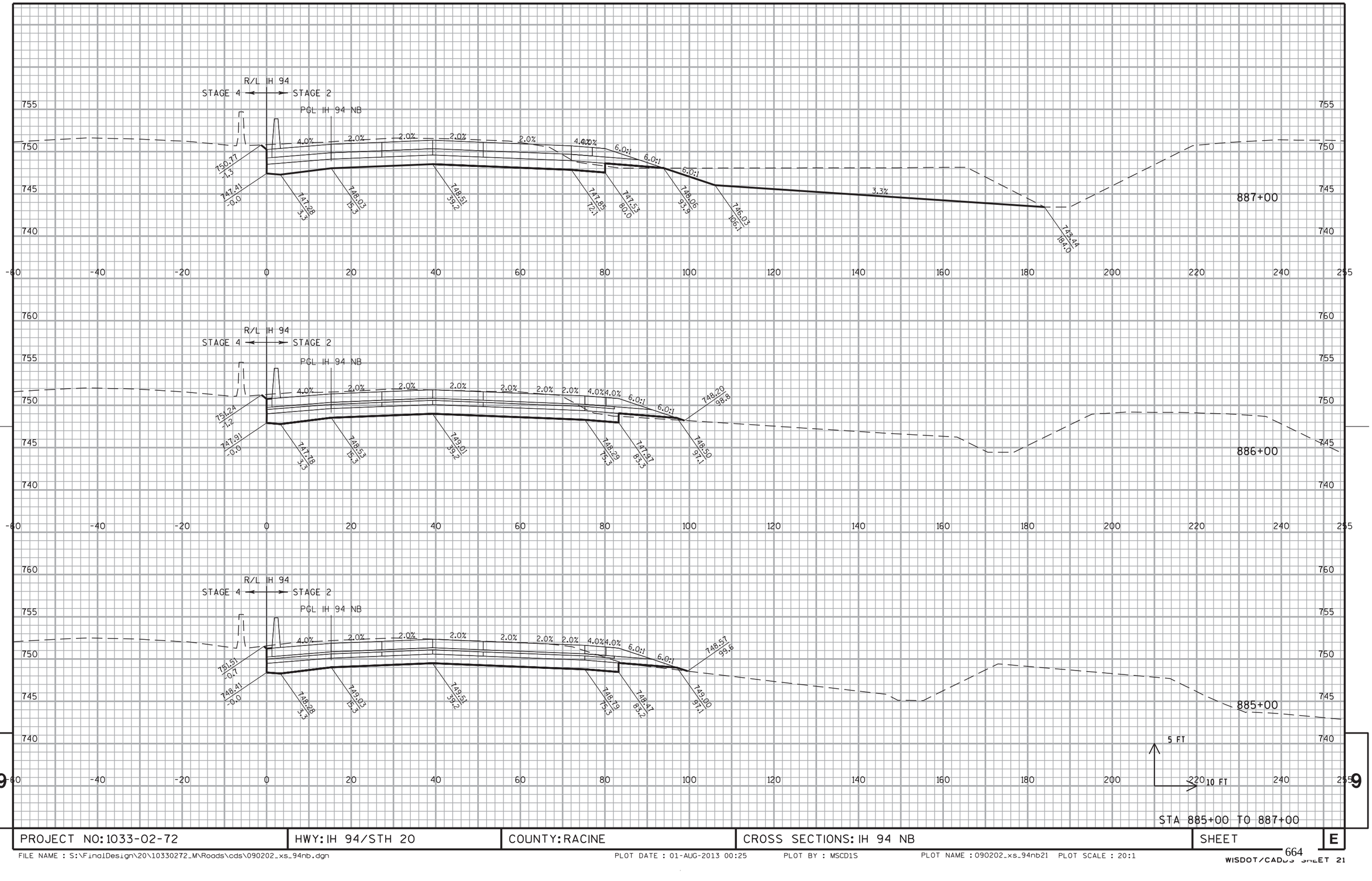


PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E



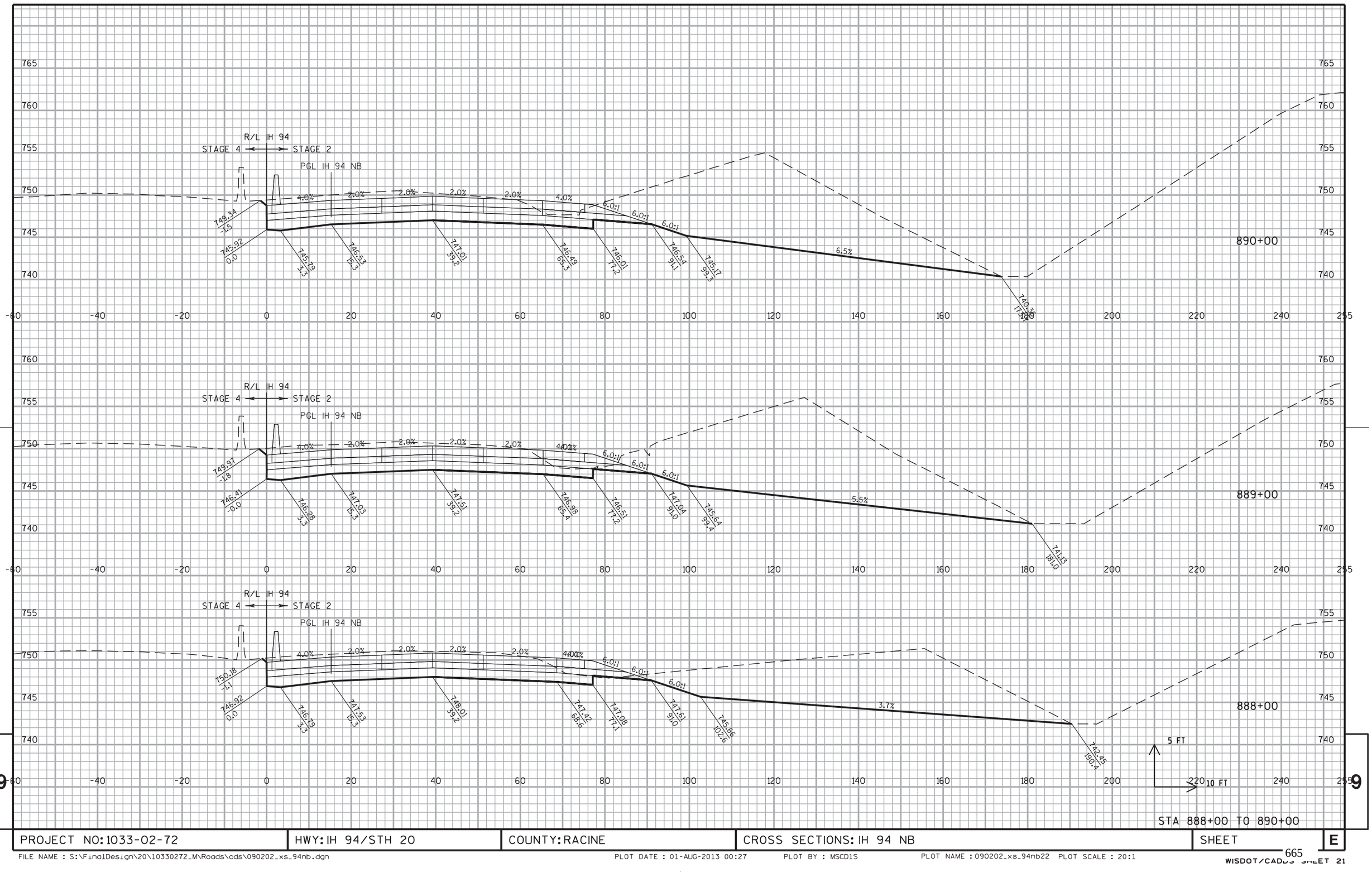
STA 882+00 TO 884+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E



STA 885+00 TO 887+00

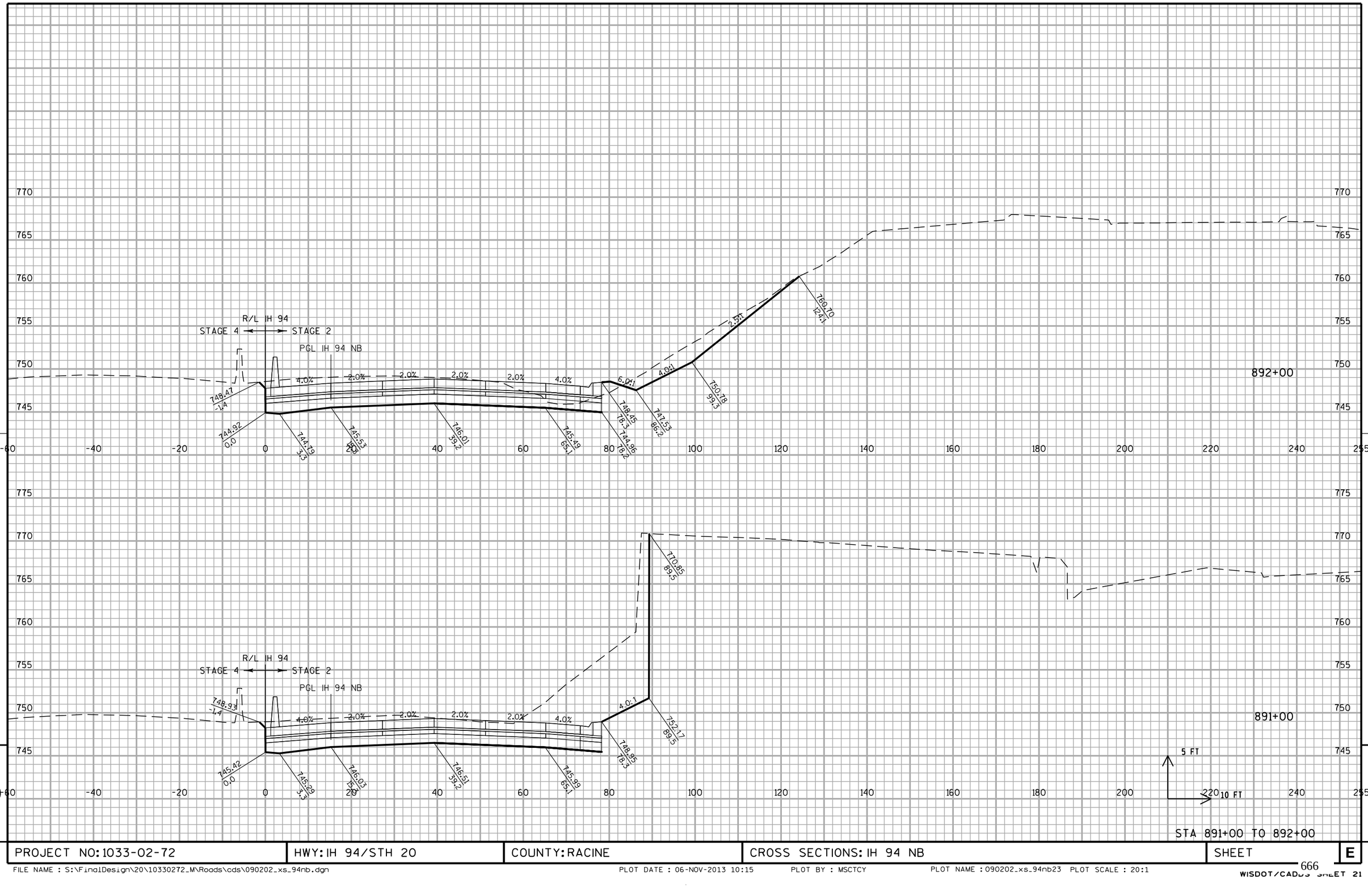
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090202_xs_94nb.dgn PLOT DATE : 01-AUG-2013 00:27 PLOT BY : MSCD1S PLOT NAME : 090202_xs_94nb22 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

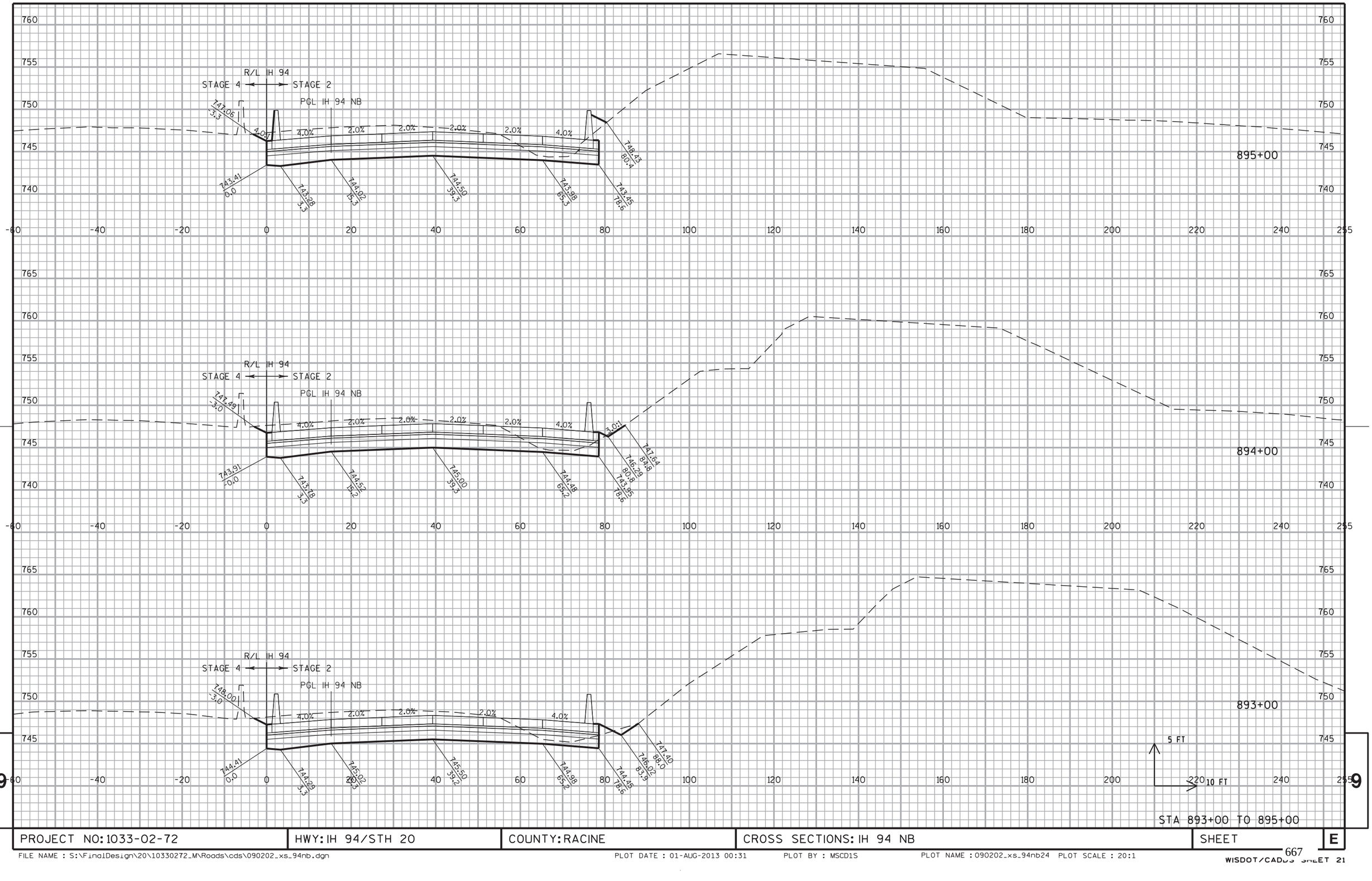


STA 891+00 TO 892+00

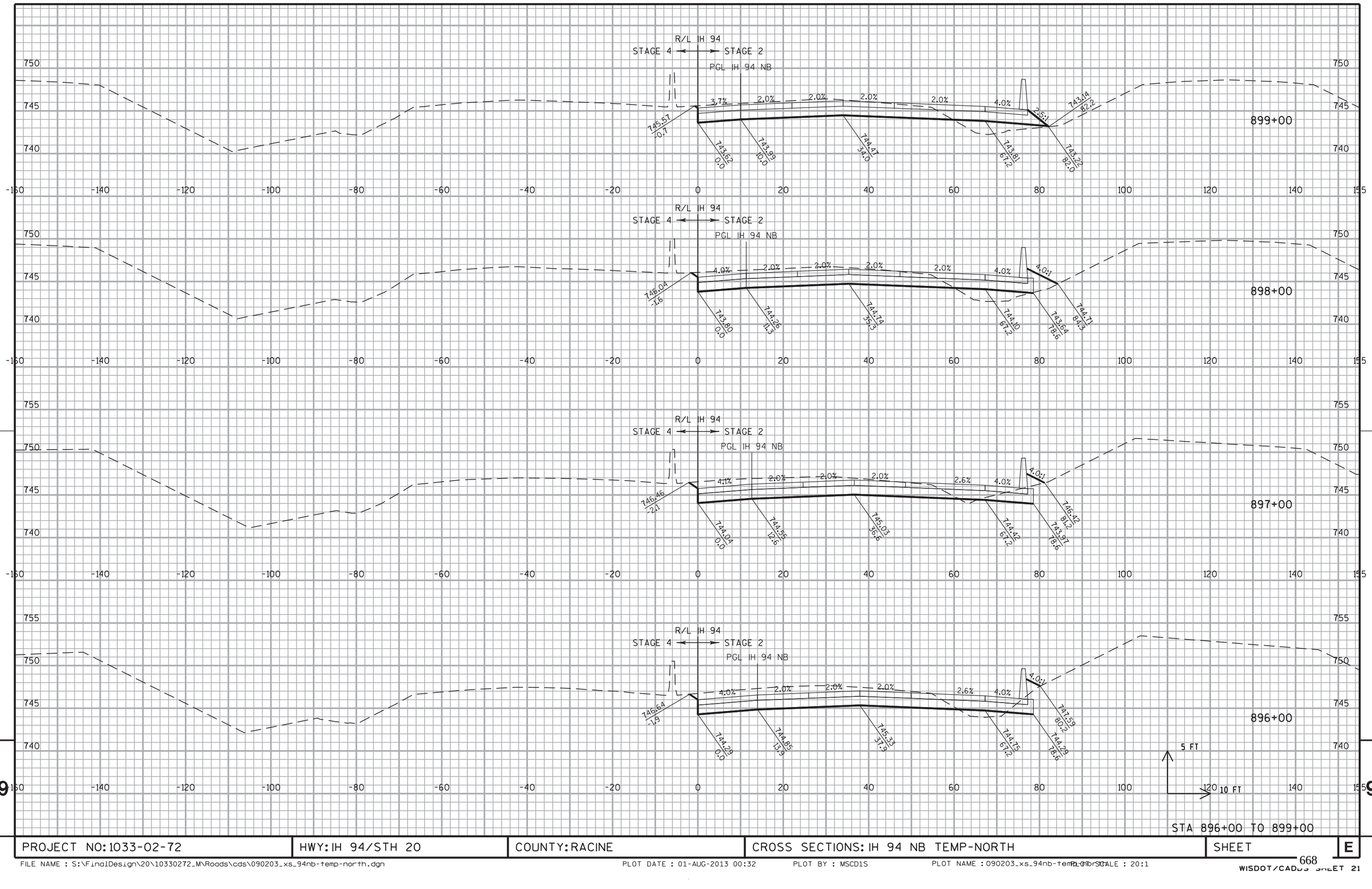
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090202_xs_94nb.dgn PLOT DATE : 06-NOV-2013 10:15 PLOT BY : MSCTCY PLOT NAME : 090202_xs_94nb23 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

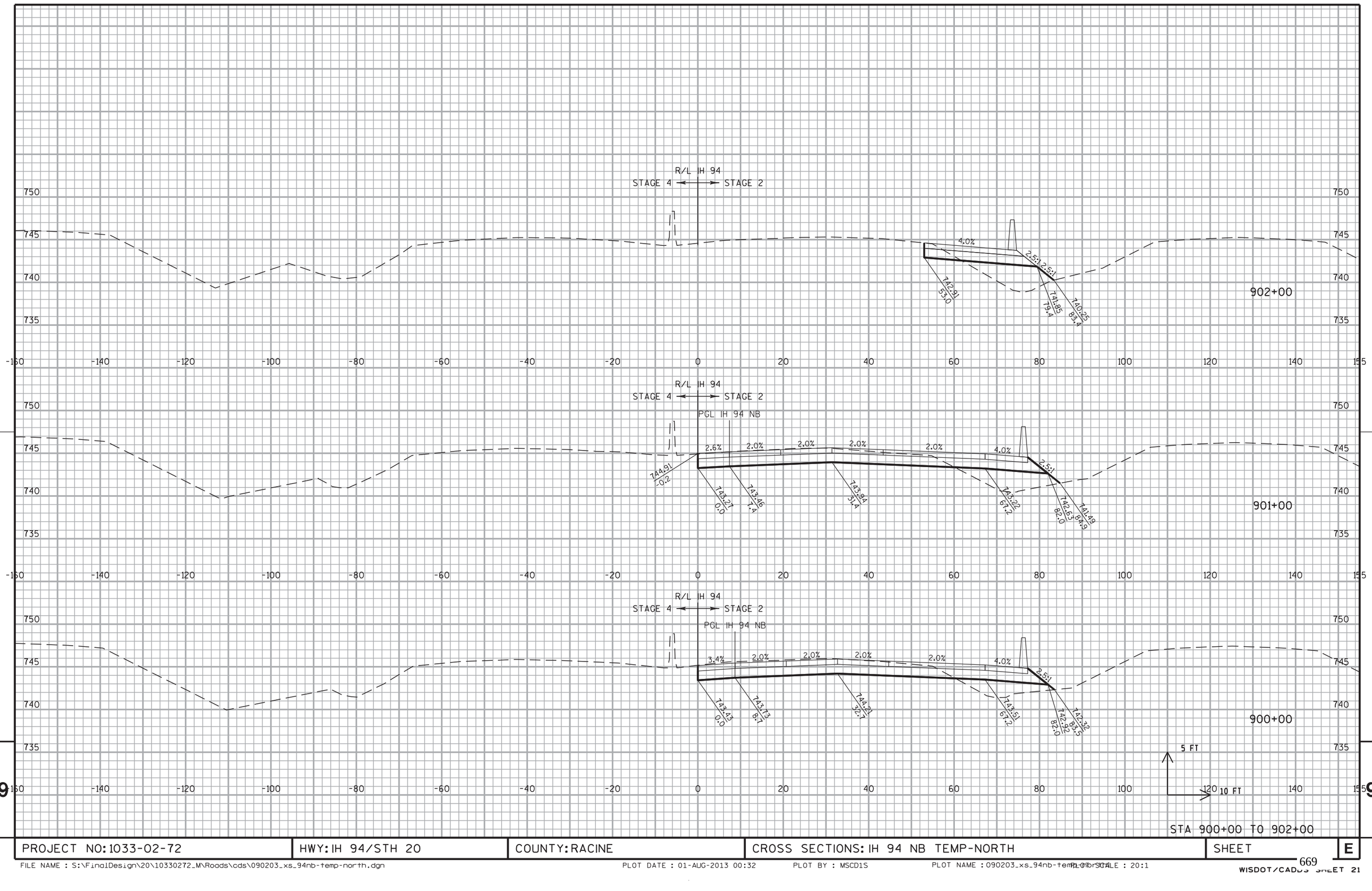


PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB TEMP-NORTH	SHEET	E

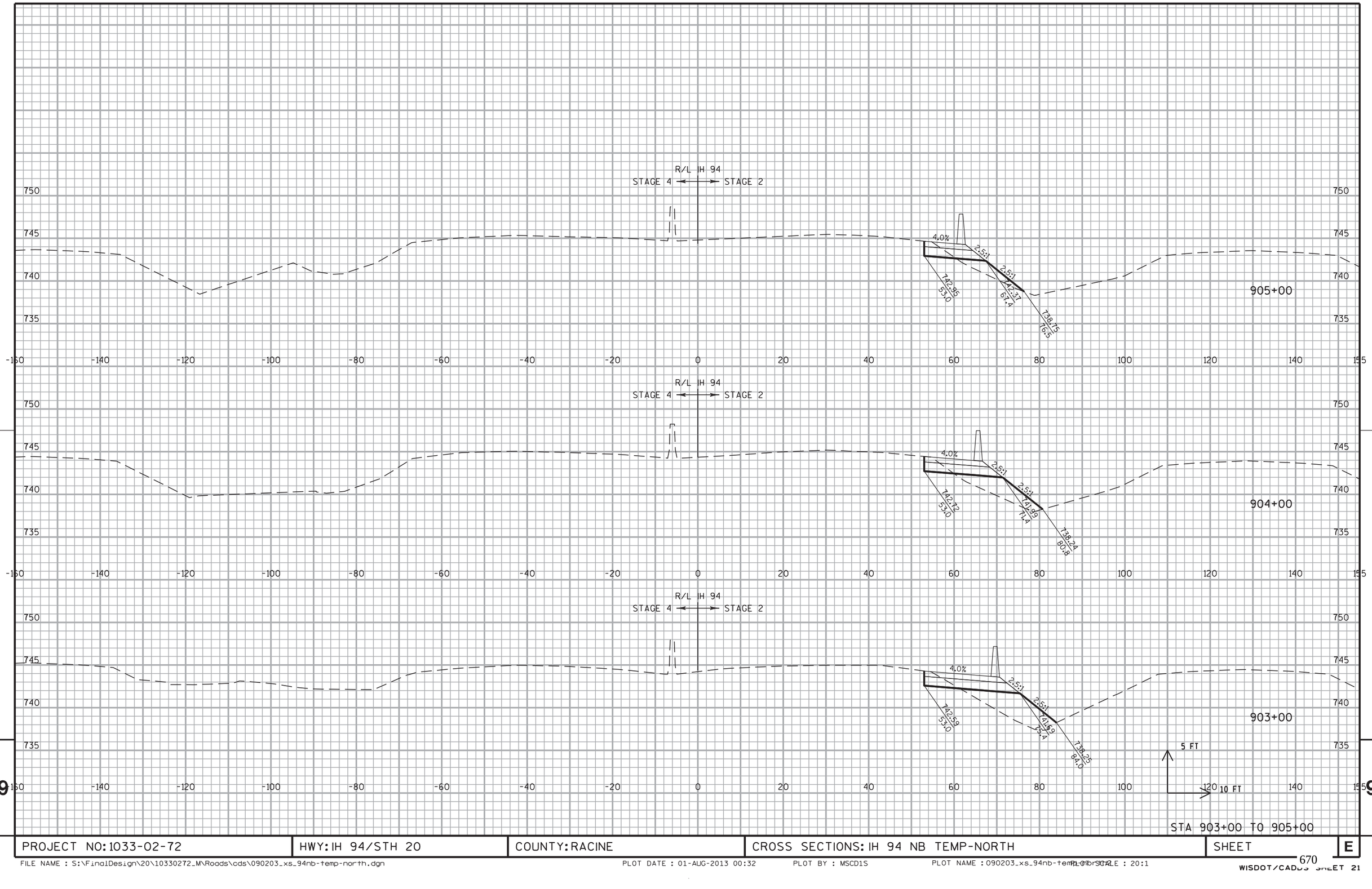
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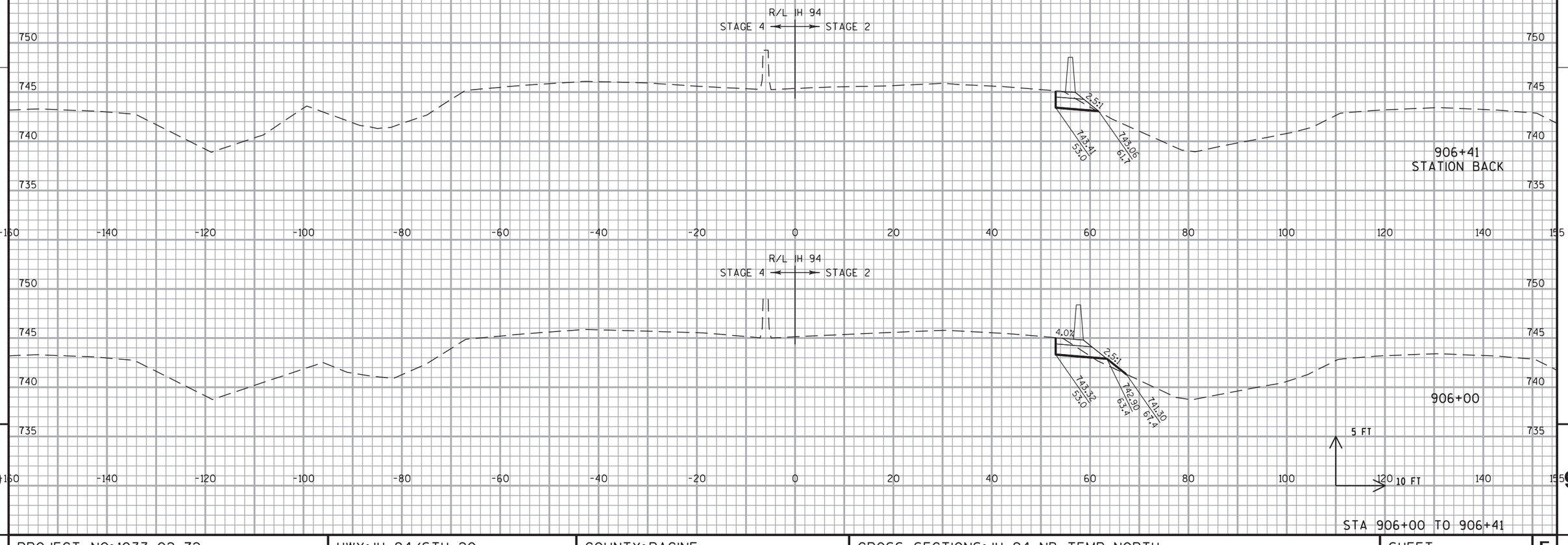
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB TEMP-NORTH	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090203_xs_94nb-temp-north.dgn PLOT DATE : 01-AUG-2013 00:32 PLOT BY : MSCD1S PLOT NAME : 090203_xs_94nb-temp-north.dgn PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

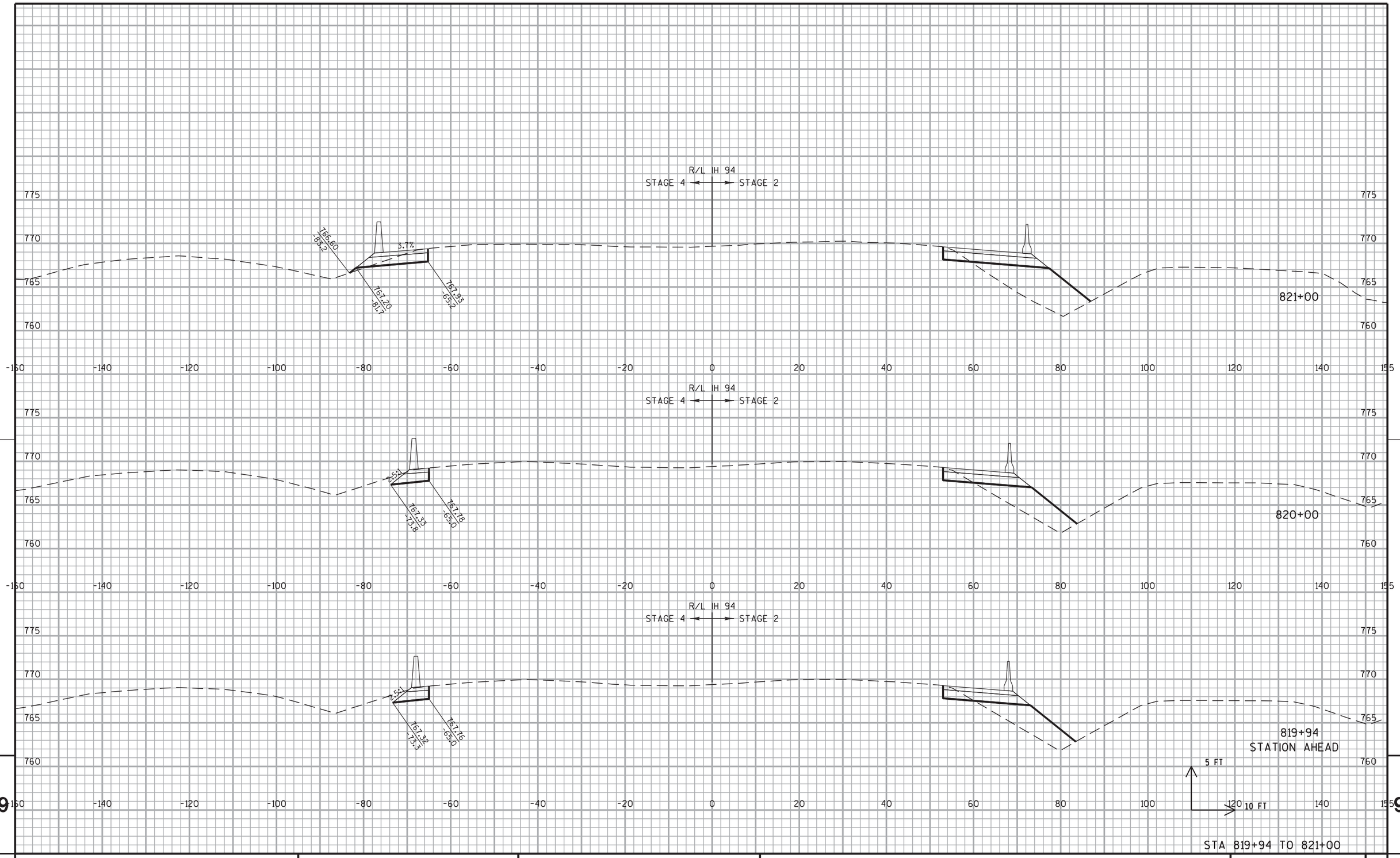


PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB TEMP-NORTH	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 NB TEMP-NORTH	SHEET	E

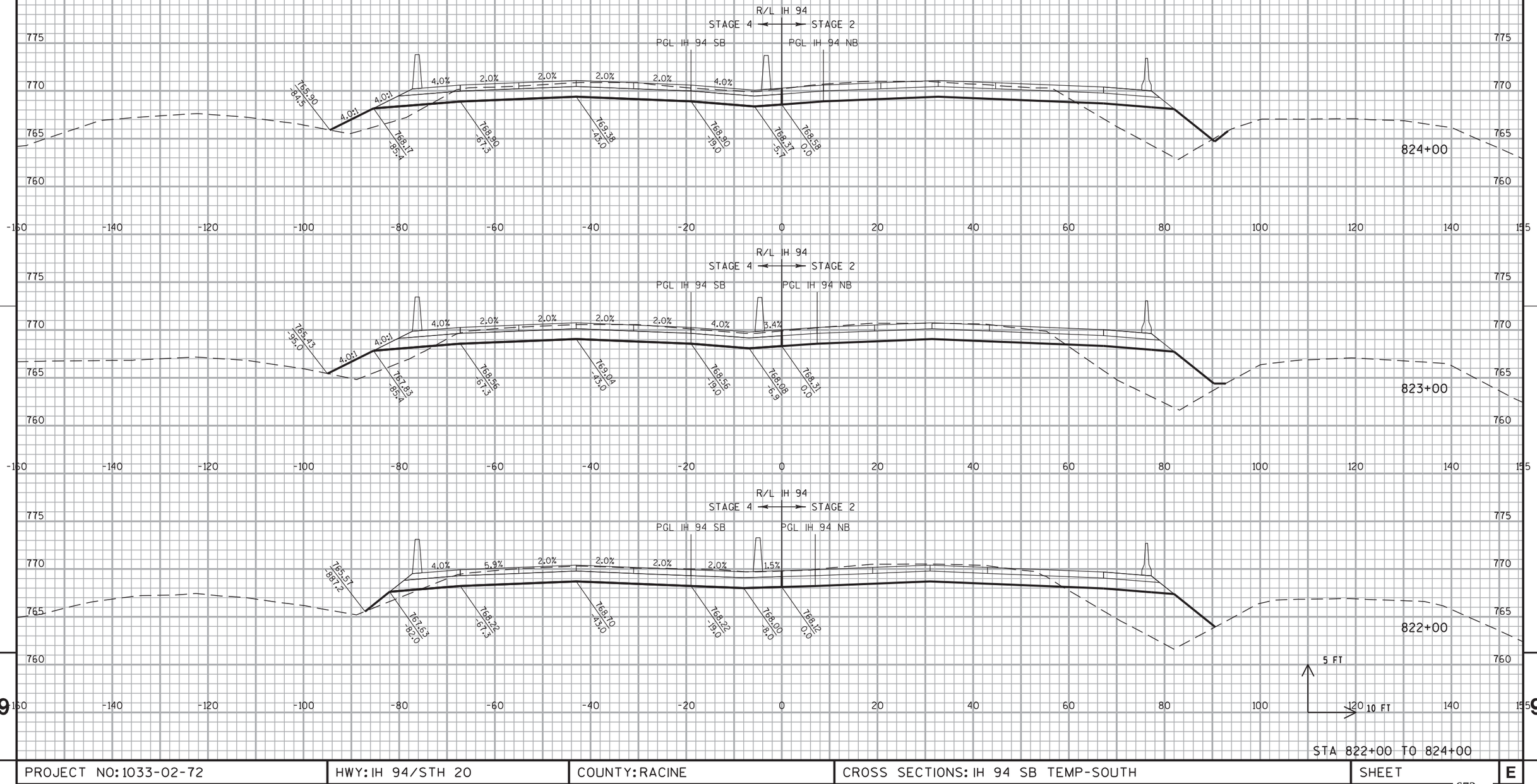
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PLOT DATE : 01-AUG-2013 00:32
PLOT BY : MSCD1S
PLOT NAME : 090203_xs_94nb-temp-north.dgn
PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21



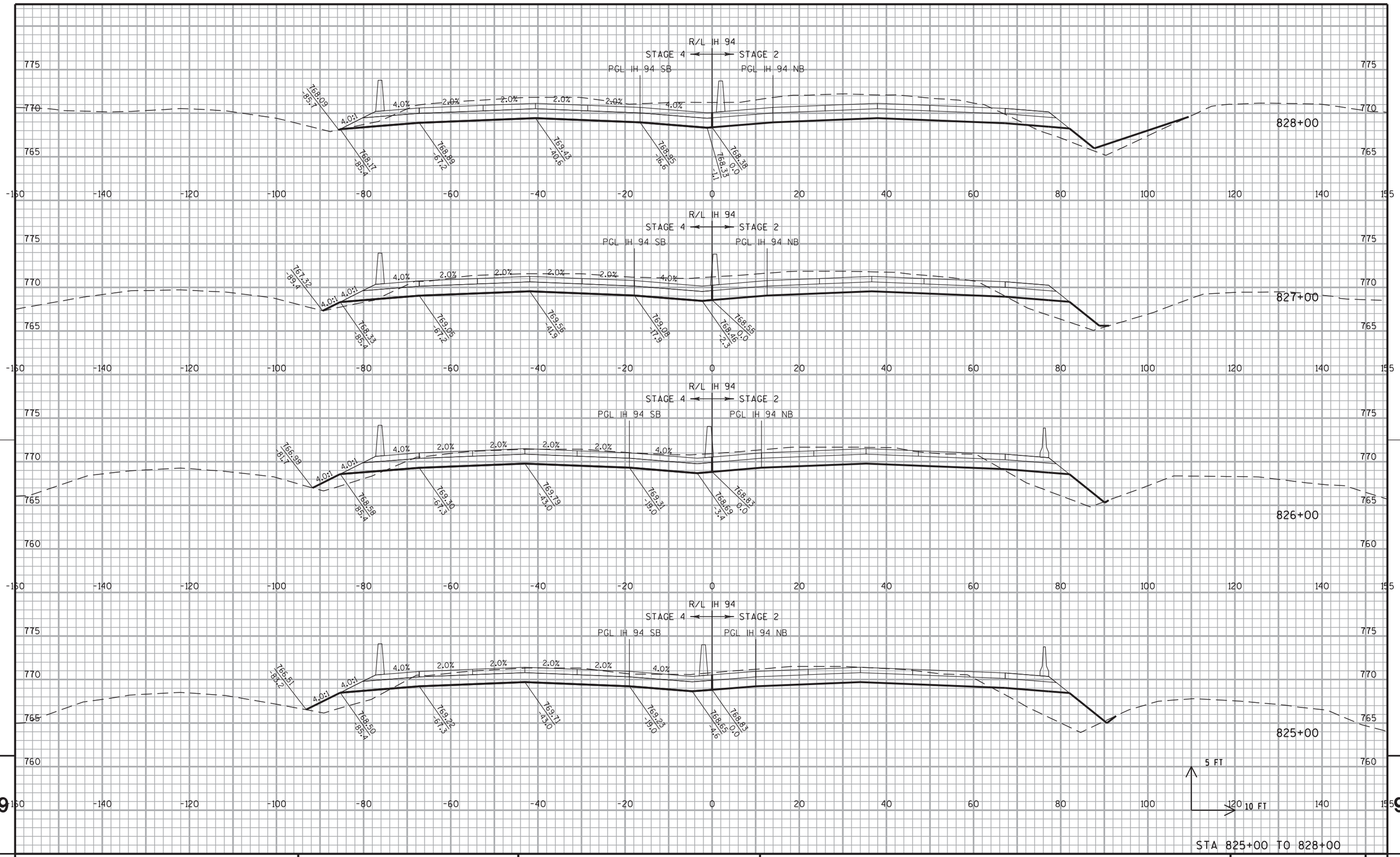
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB TEMP-SOUTH	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090204_xs_94sb-temp-south.dgn PLOT DATE : 01-AUG-2013 00:33 PLOT BY : MSCD1S PLOT NAME : 090204_xs_94sb-temp-south.dgn PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB TEMP-SOUTH	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB TEMP-SOUTH	SHEET	E

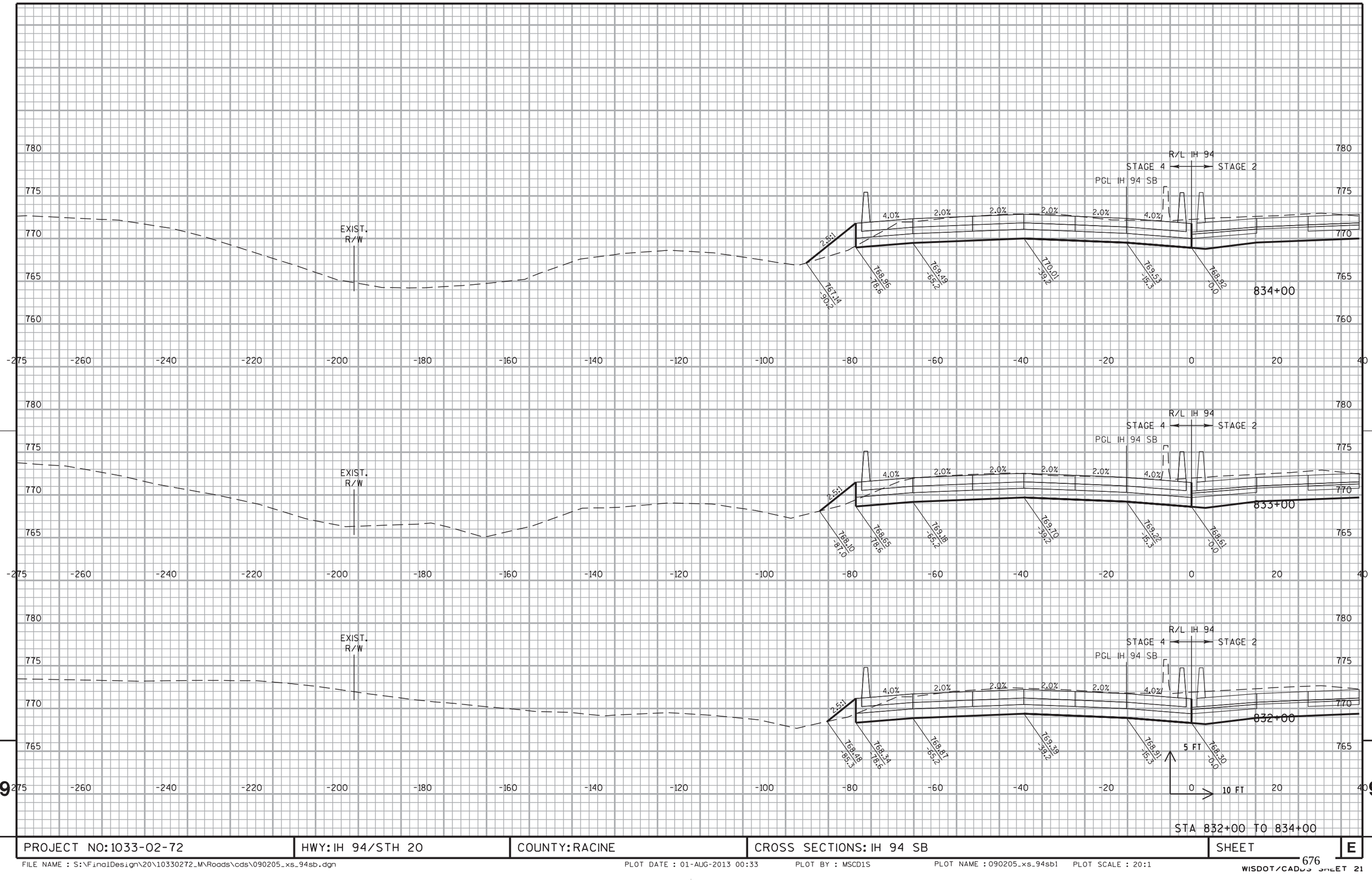
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PLOT DATE : 01-AUG-2013 00:33
PLOT BY : MSCD1S
PLOT NAME : 090204_xs_94sb-temp-south.dgn
PLOT SCALE : 20:1

STA 829+00 TO 831+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090205_xs_94sb.dgn PLOT DATE : 01-AUG-2013 00:33 PLOT BY : MSCD1S PLOT NAME : 090205_xs_94sb PLOT SCALE : 20:1

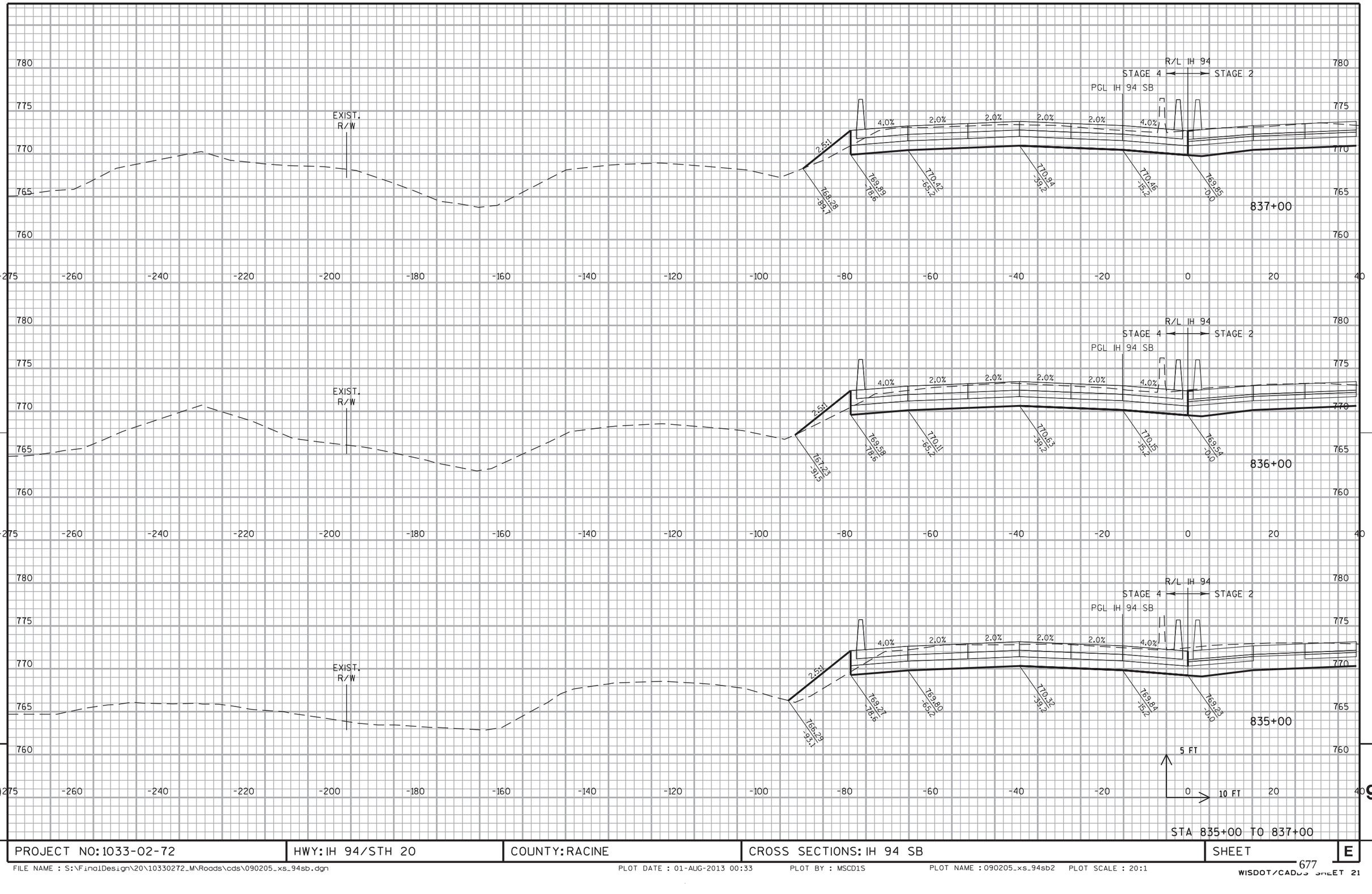
WISDOT/CADDS SHEET 21



STA 832+00 TO 834+00

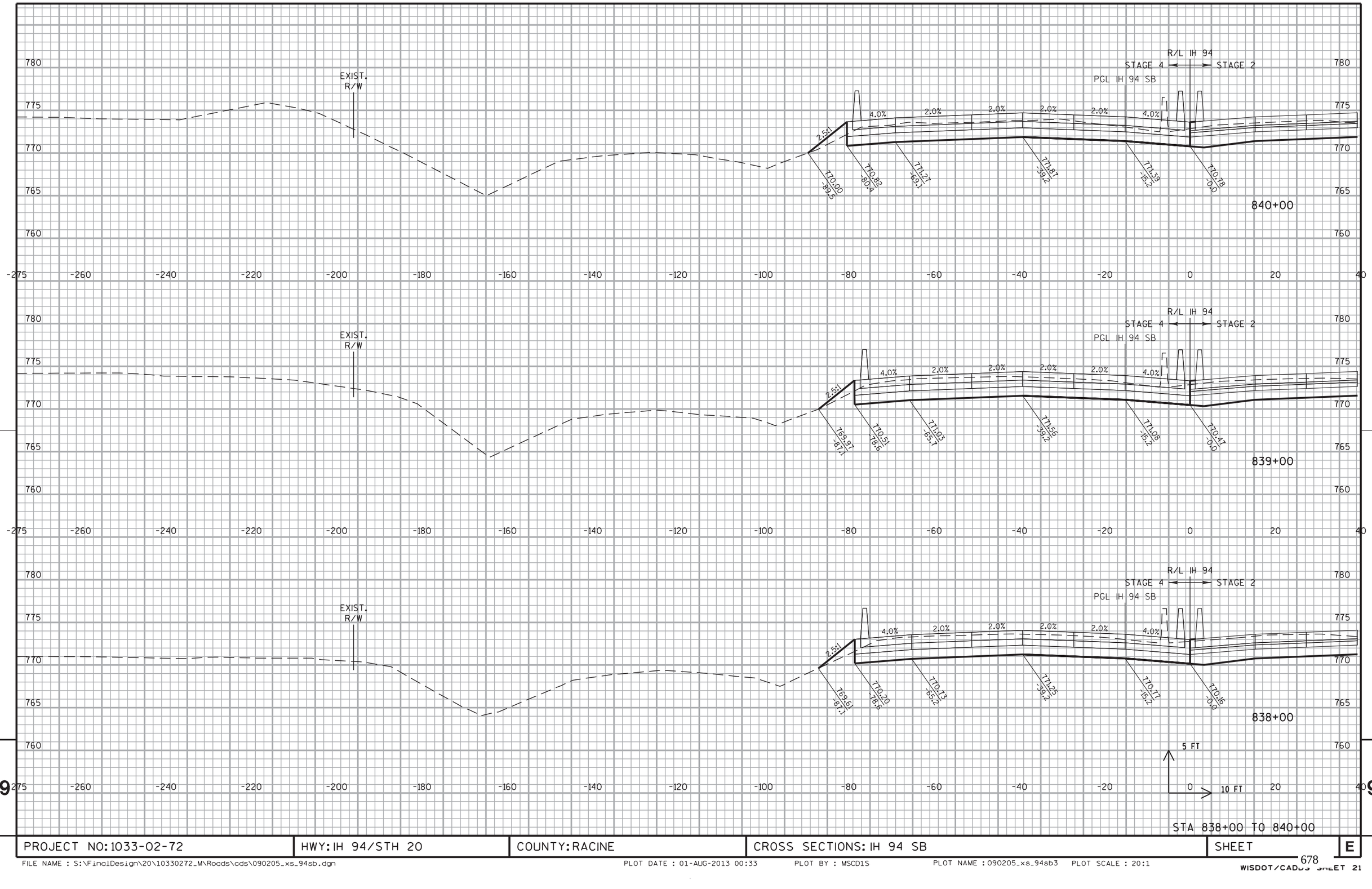
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090205_xs_94sb.dgn PLOT DATE : 01-AUG-2013 00:33 PLOT BY : MSCD1S PLOT NAME : 090205_xs_94sb1 PLOT SCALE : 20:1



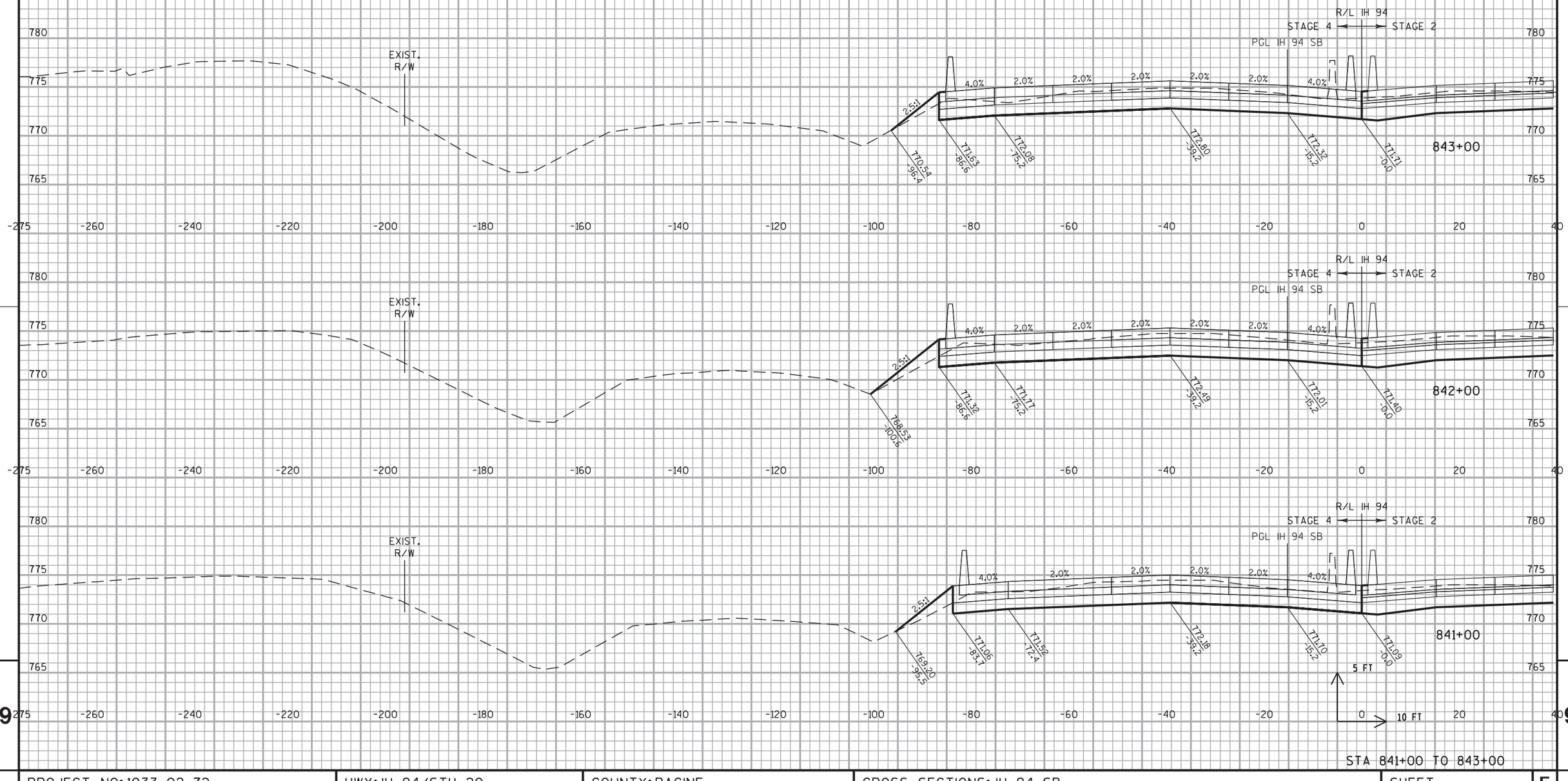
STA 835+00 TO 837+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

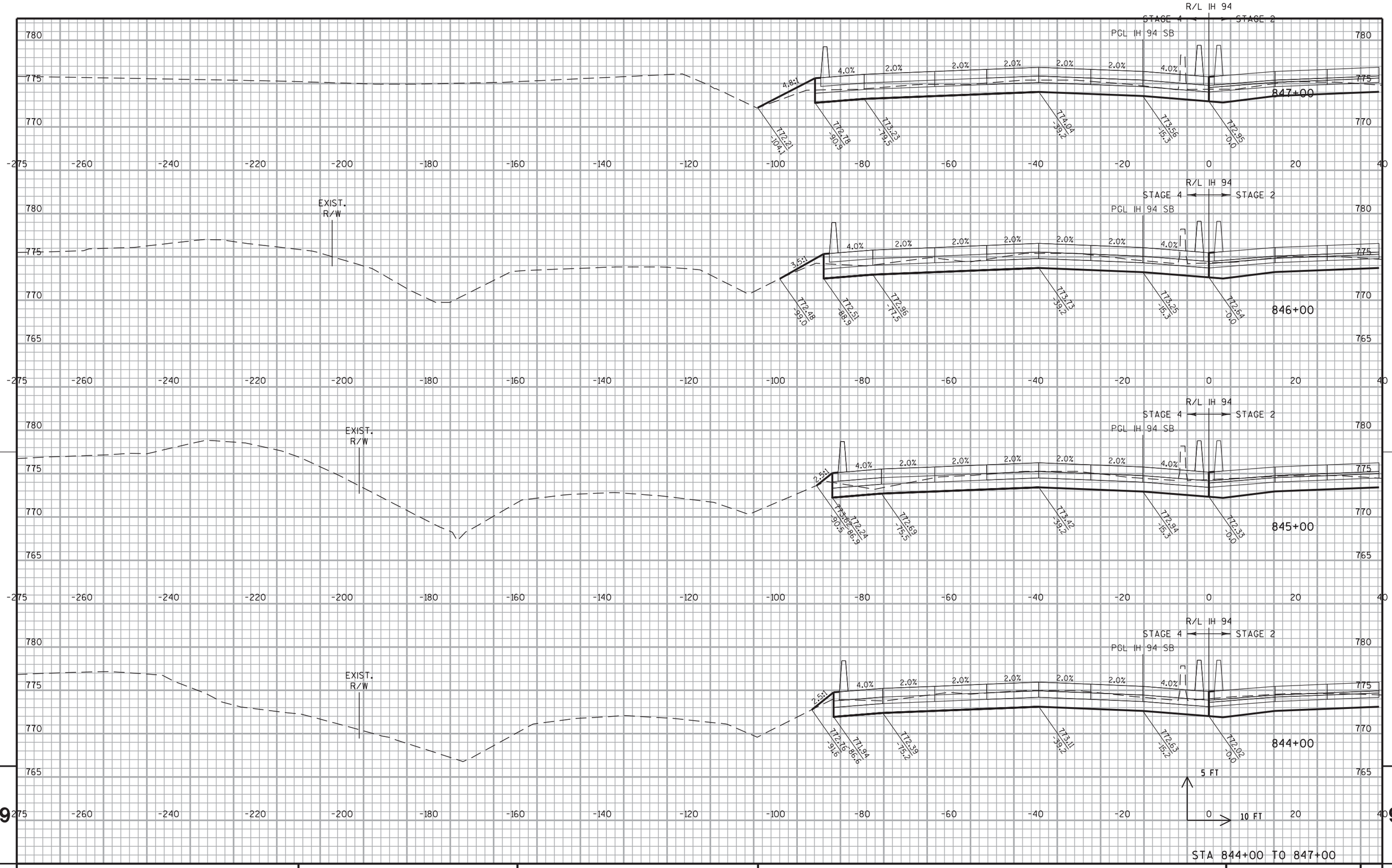


STA 838+00 TO 840+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E



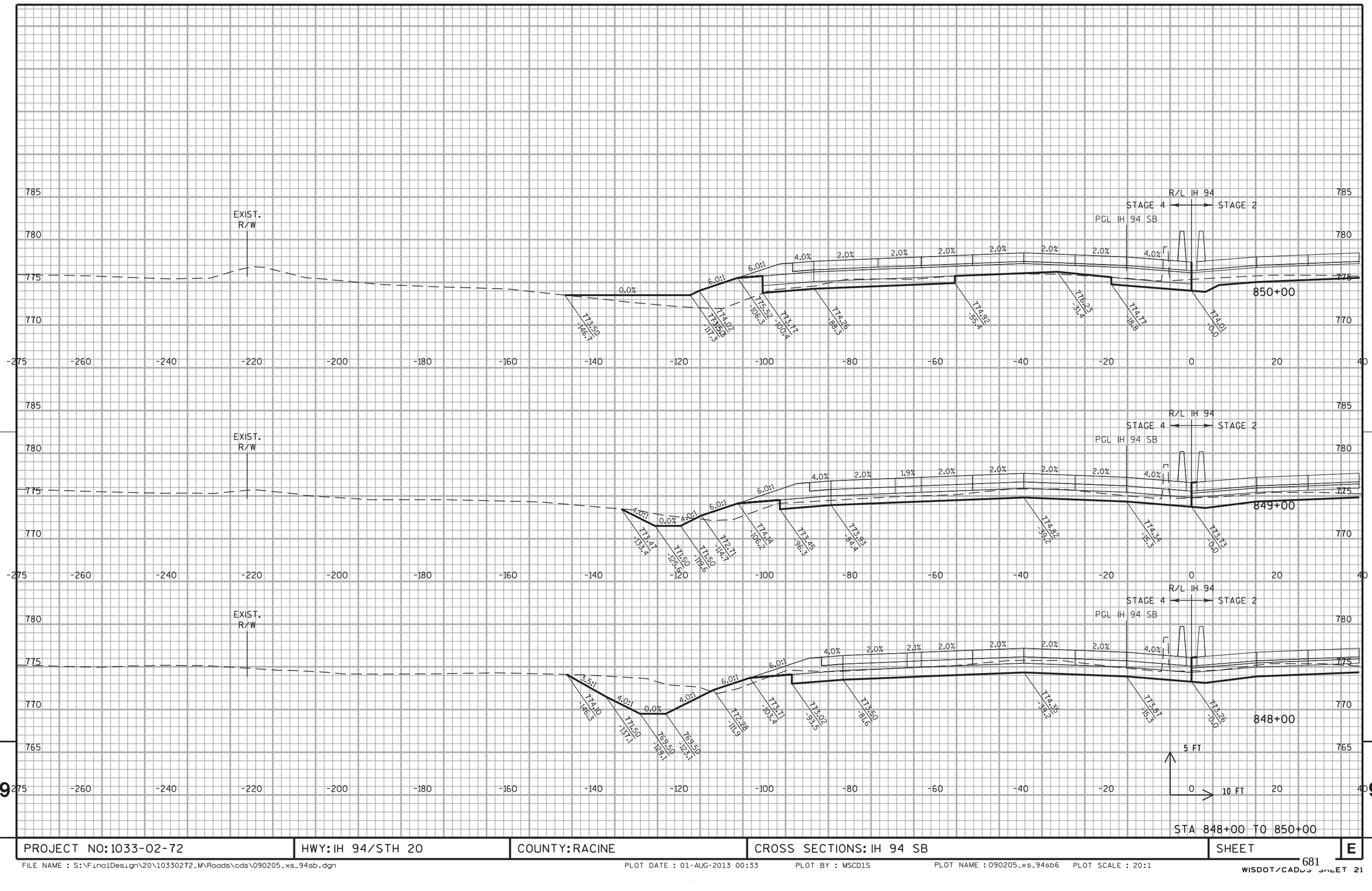
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090205_xs_94sb.dgn PLOT DATE : 01-AUG-2013 00:33 PLOT BY : MSCD1S PLOT NAME : 090205_xs_94sb5 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

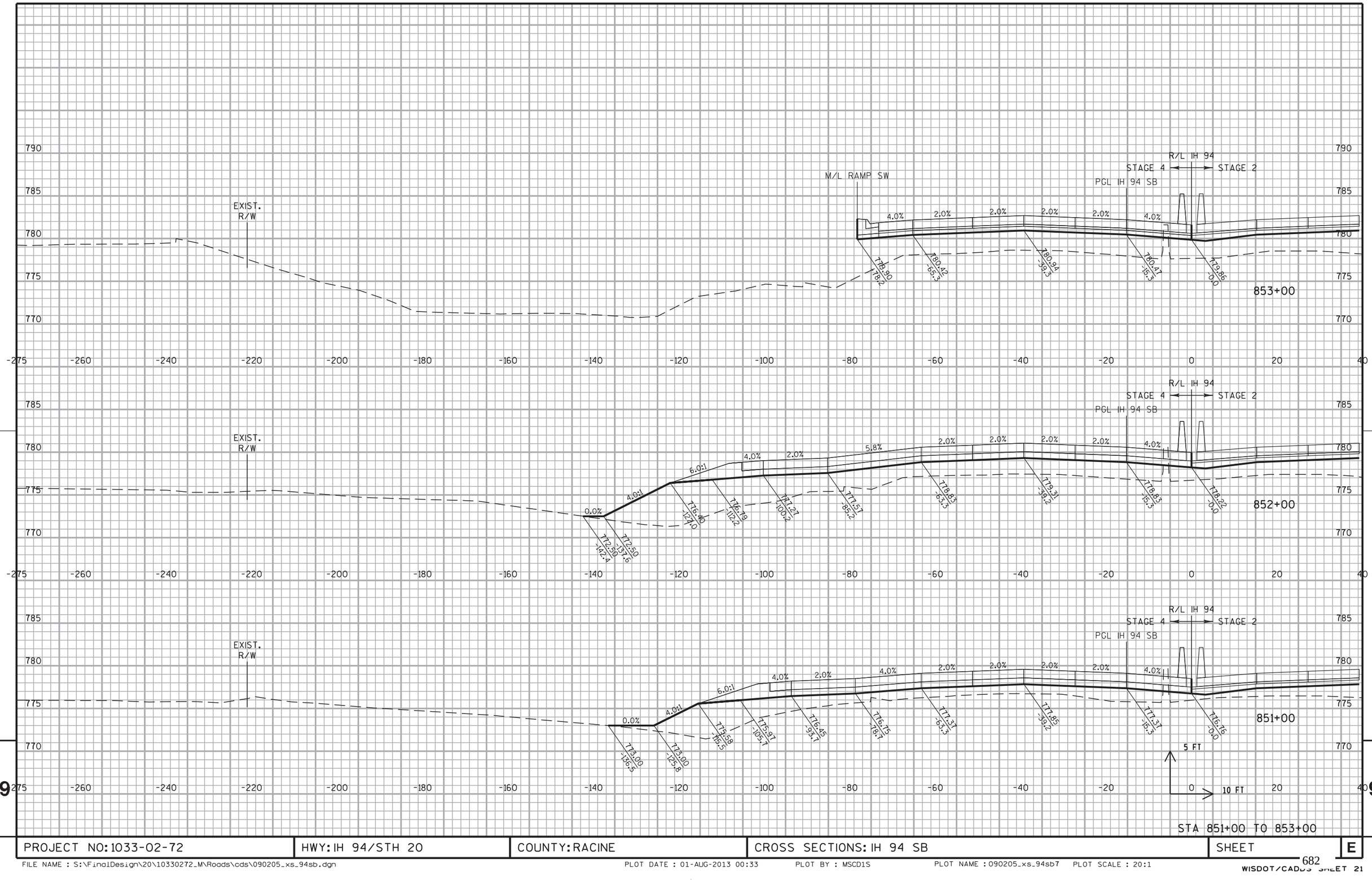


STA 848+00 TO 850+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

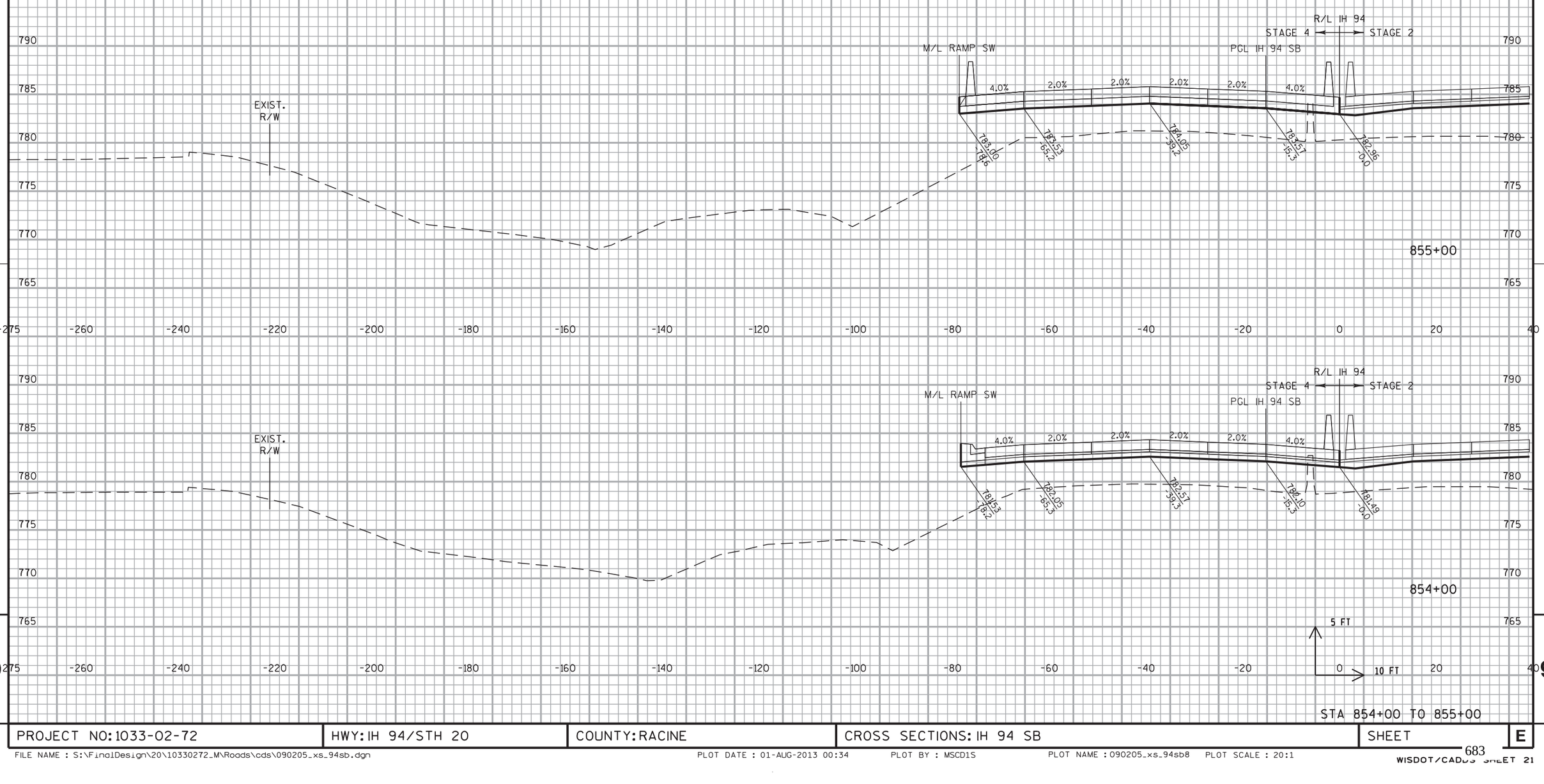
FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090205_xs_94sb.dgn PLOT DATE : 01-AUG-2013 00:33 PLOT BY : MSCD1S PLOT NAME : 090205_xs_94sb6 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



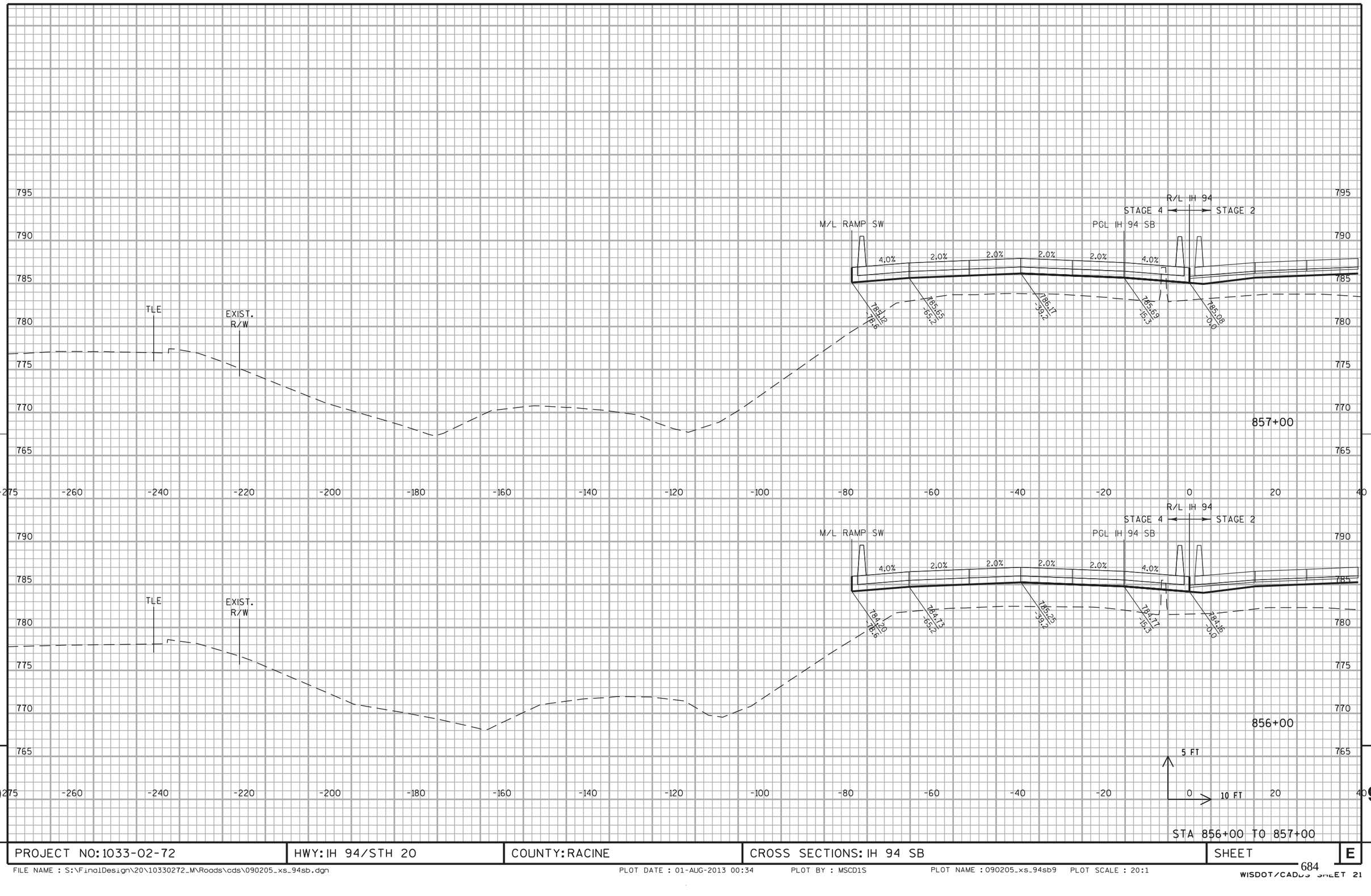
STA 851+00 TO 853+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E



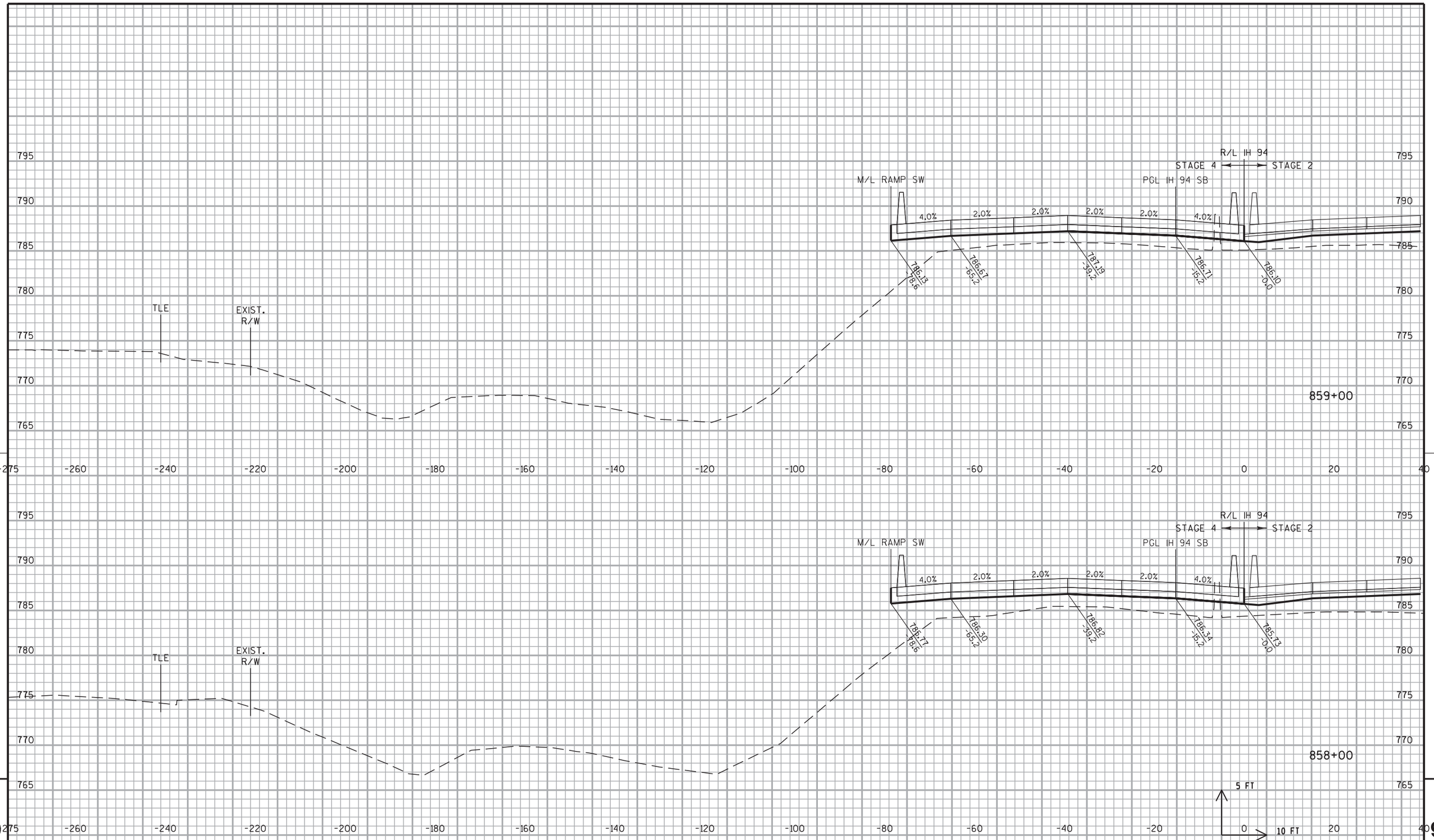
STA 854+00 TO 855+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

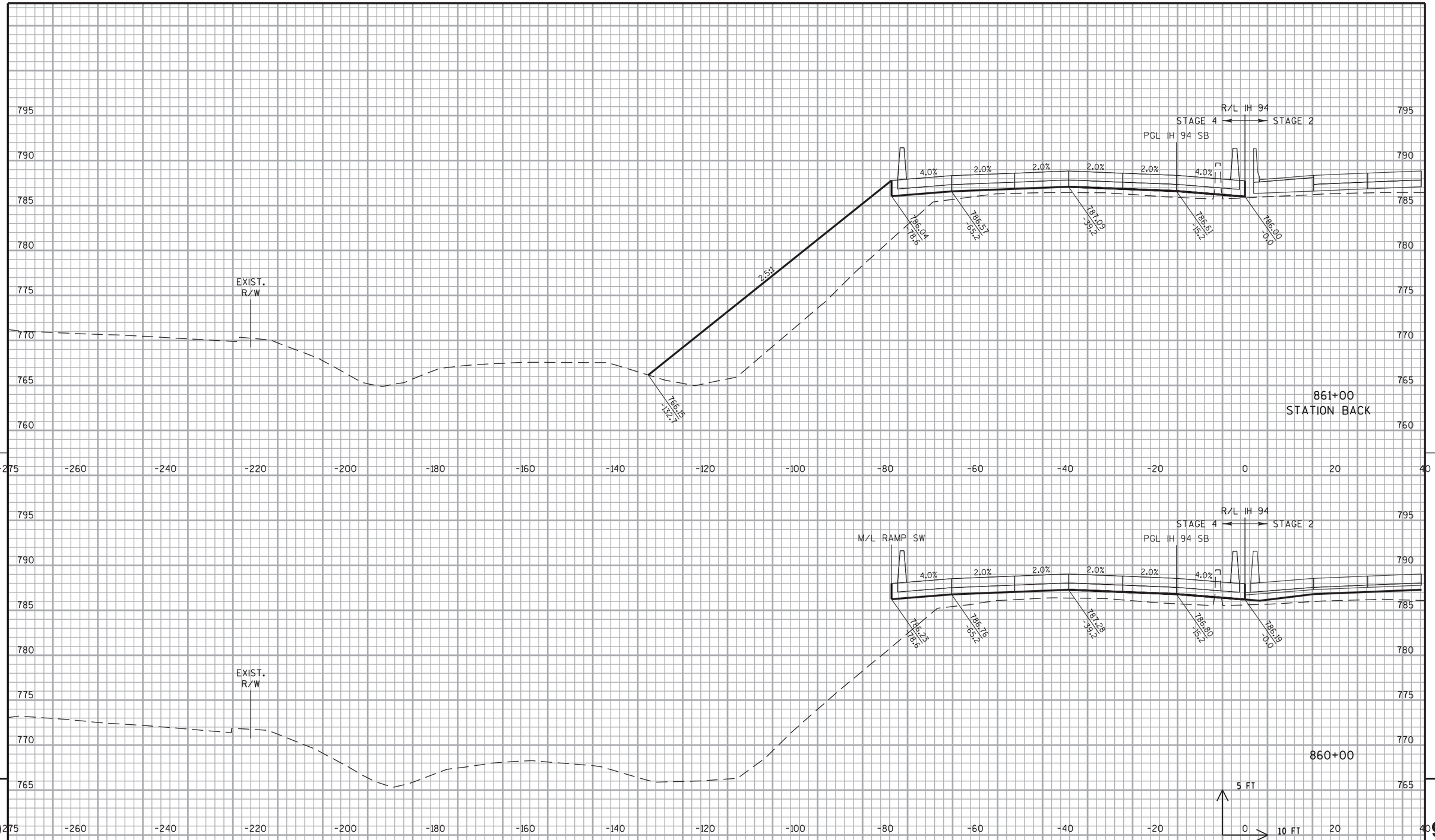


STA 856+00 TO 857+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

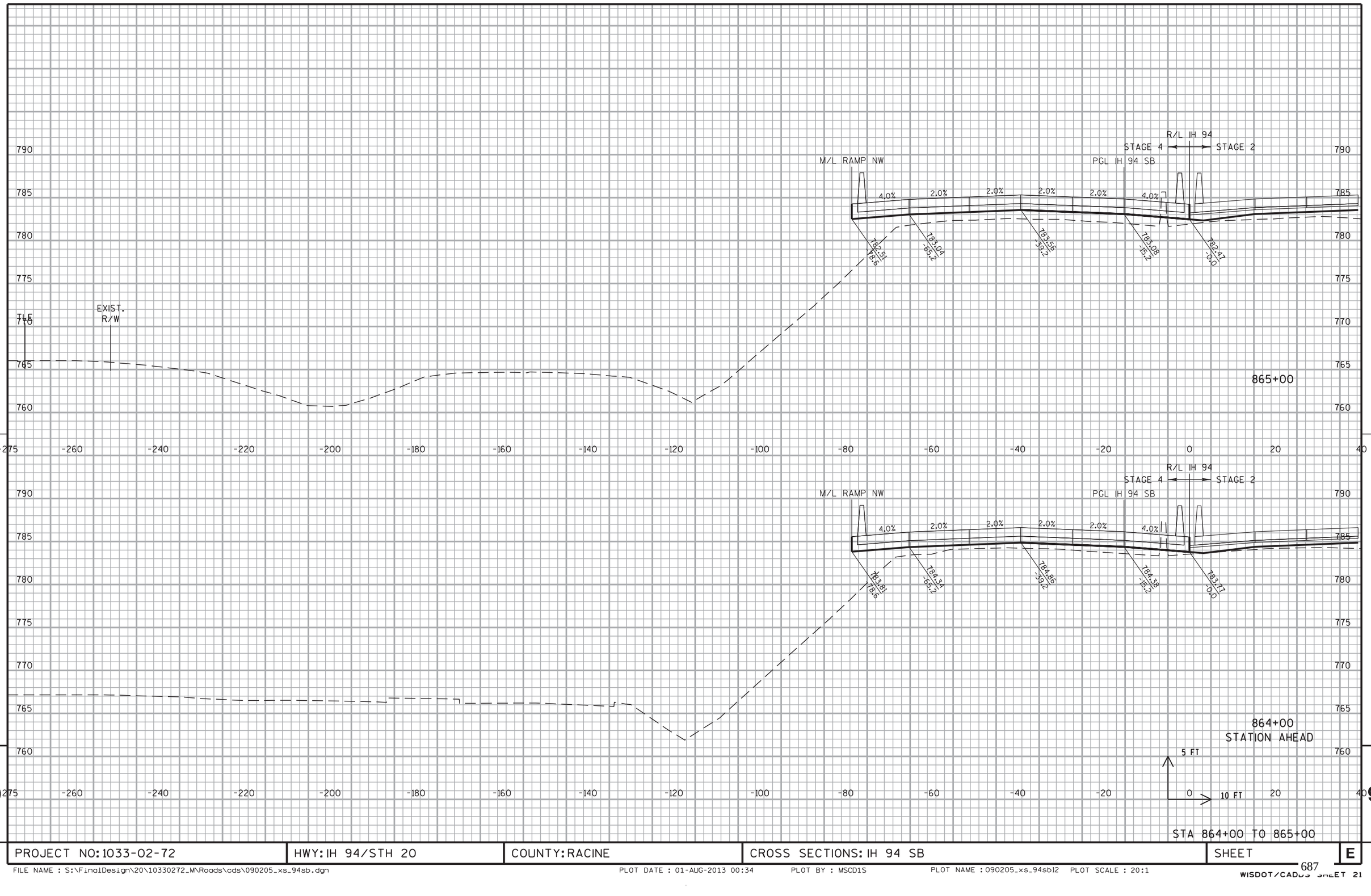


PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E



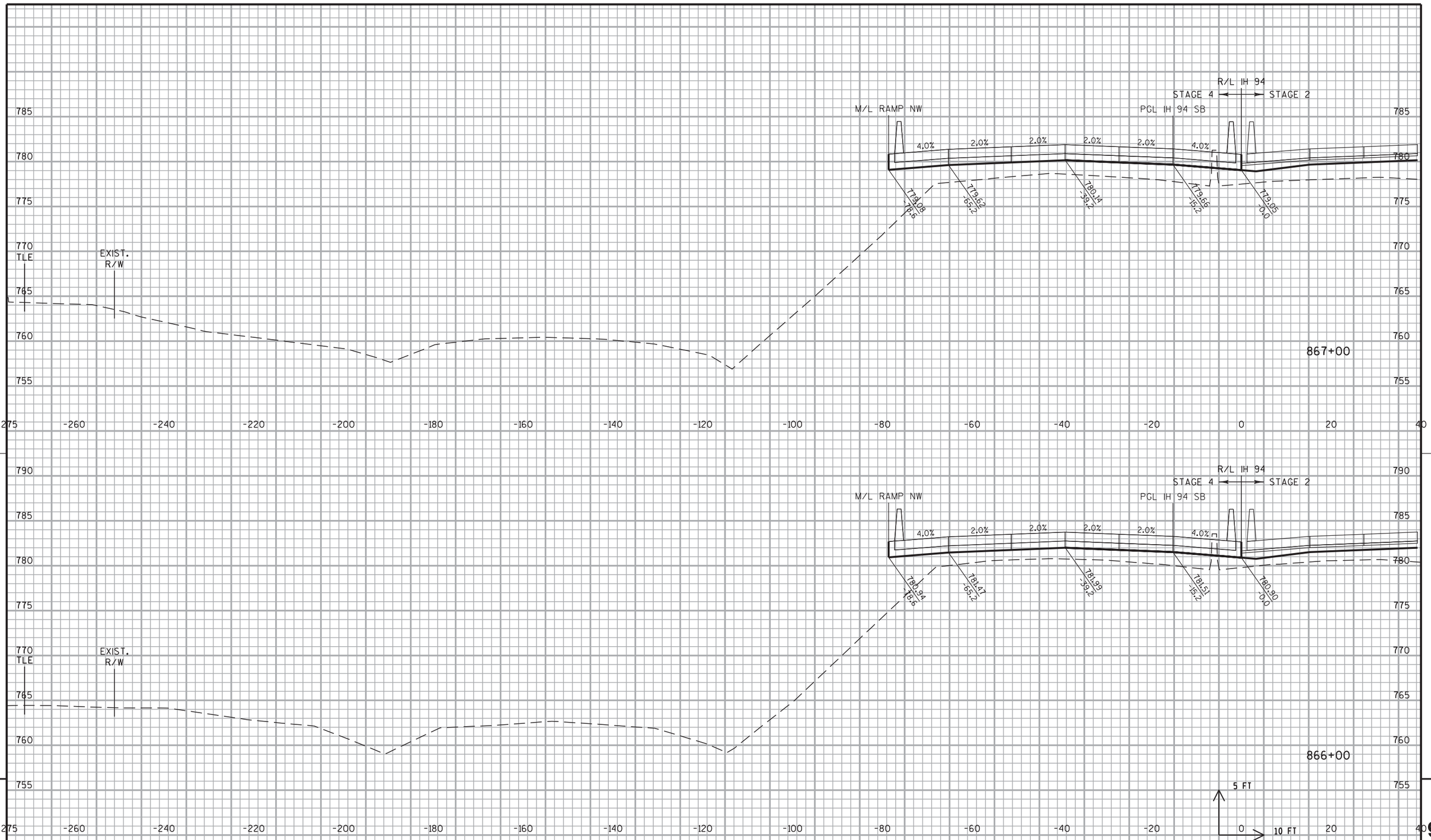
STA 860+00 TO 861+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E



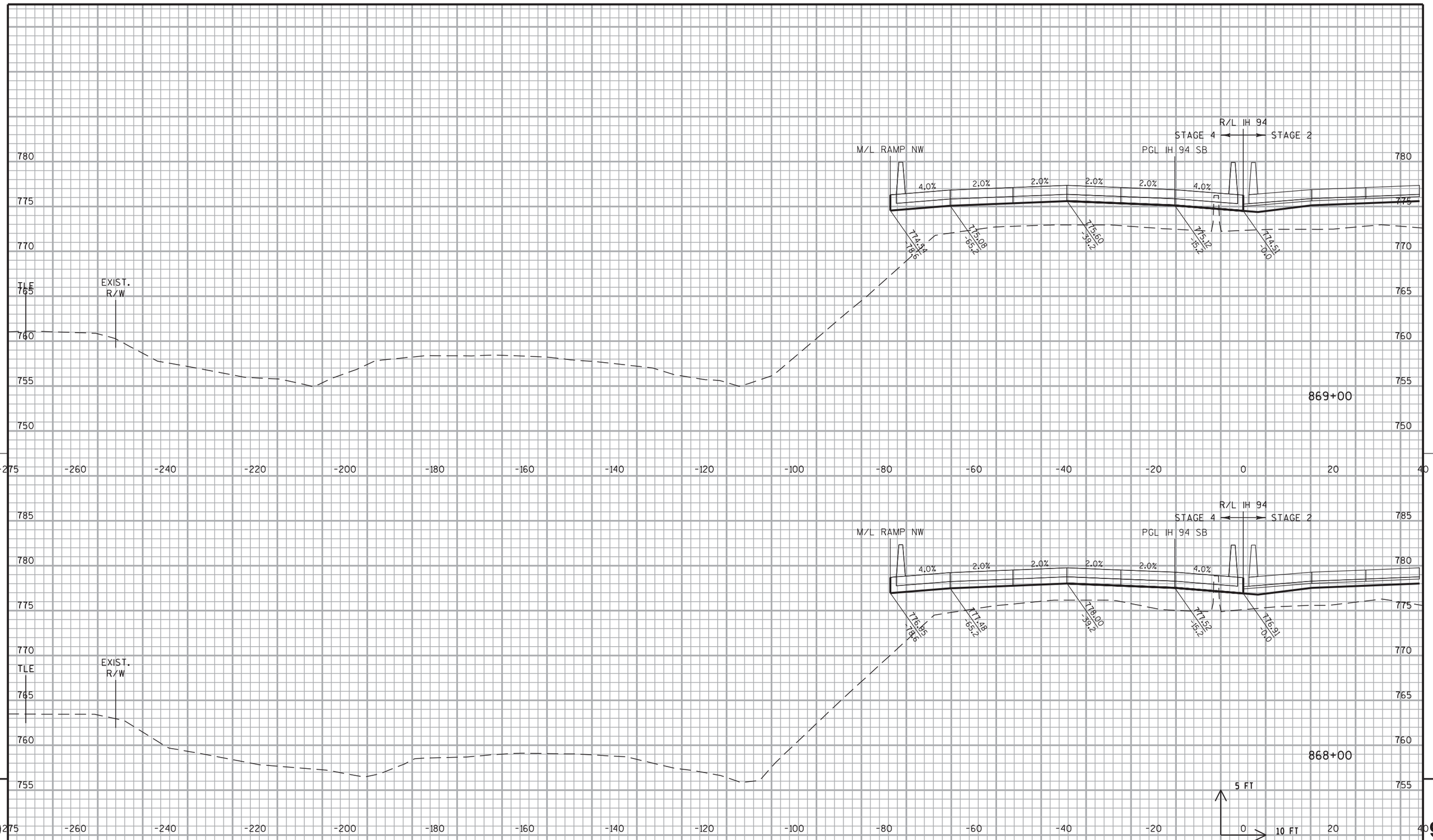
9 9

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E



STA 866+00 TO 867+00

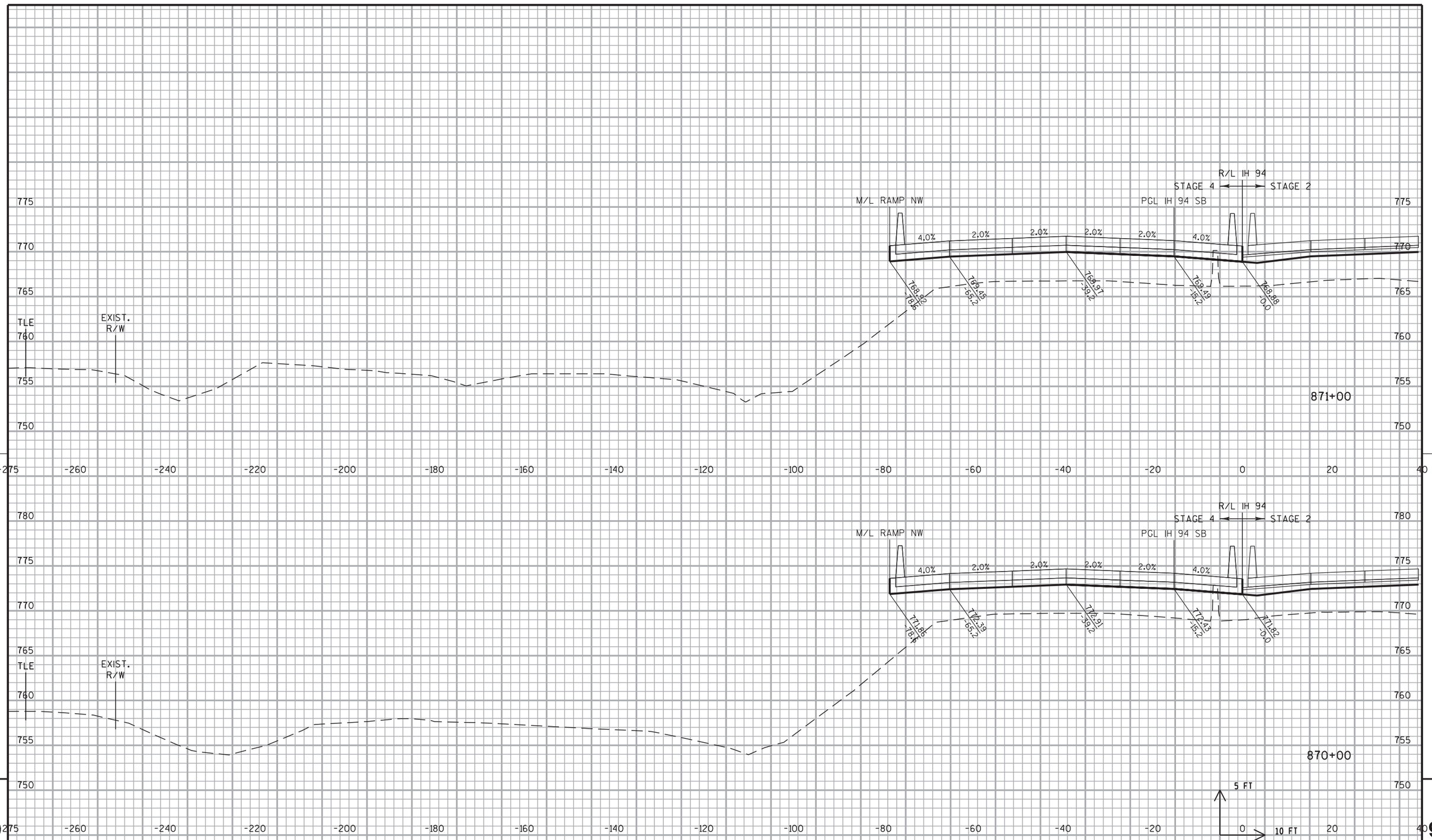
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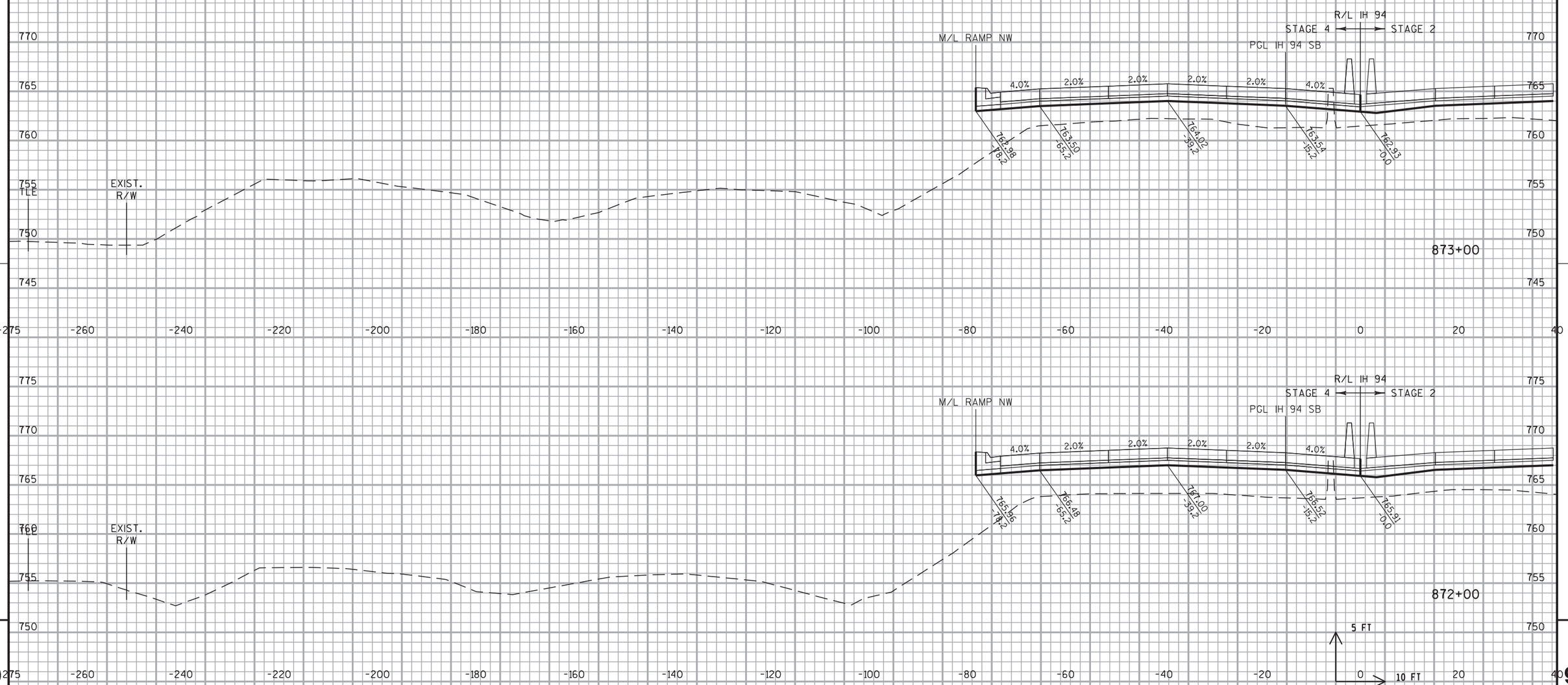
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090205_xs_94sb.dgn PLOT DATE : 01-AUG-2013 00:34 PLOT BY : MSCD1S PLOT NAME : 090205_xs_94sb14 PLOT SCALE : 20:1

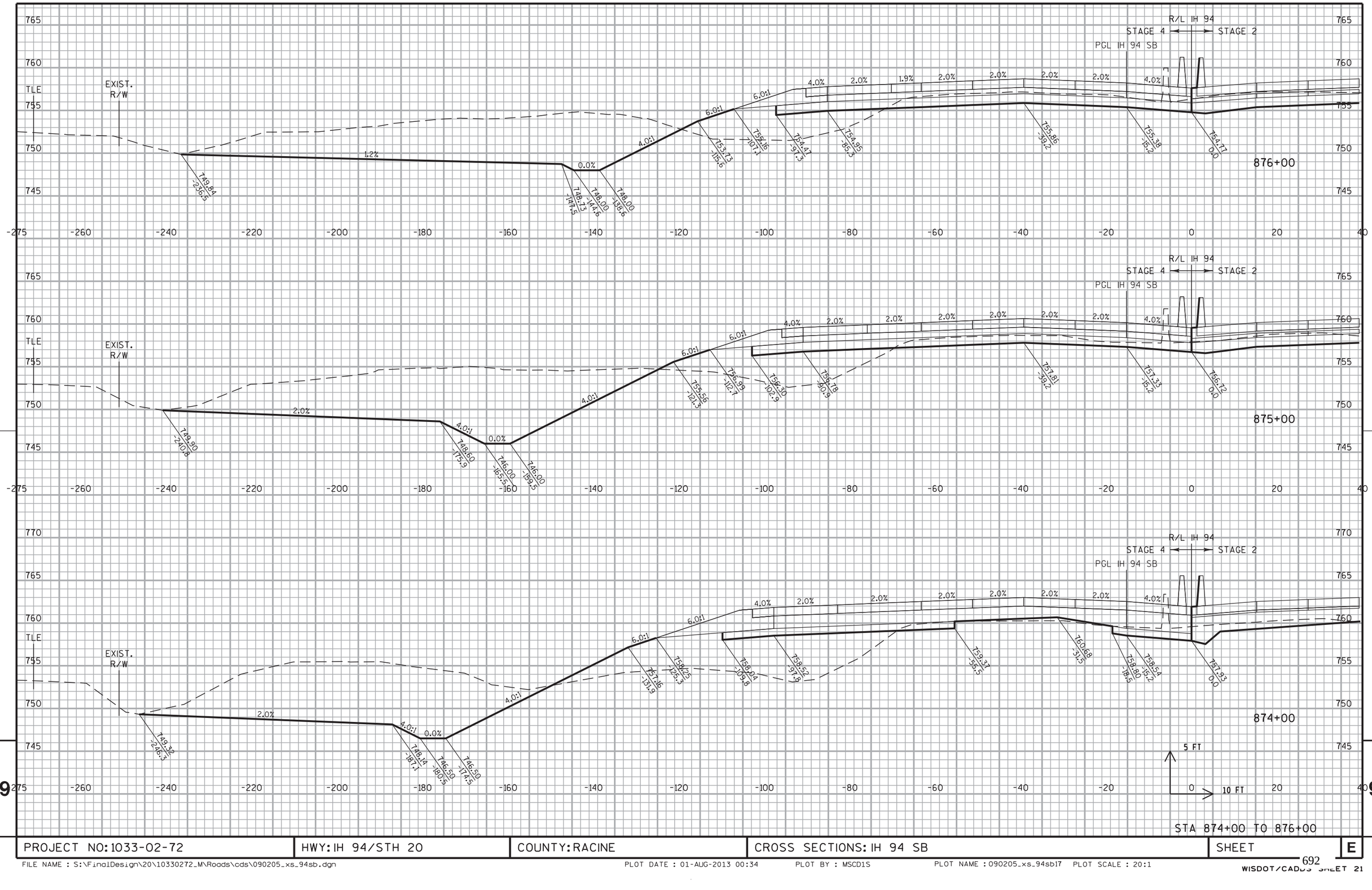
WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E



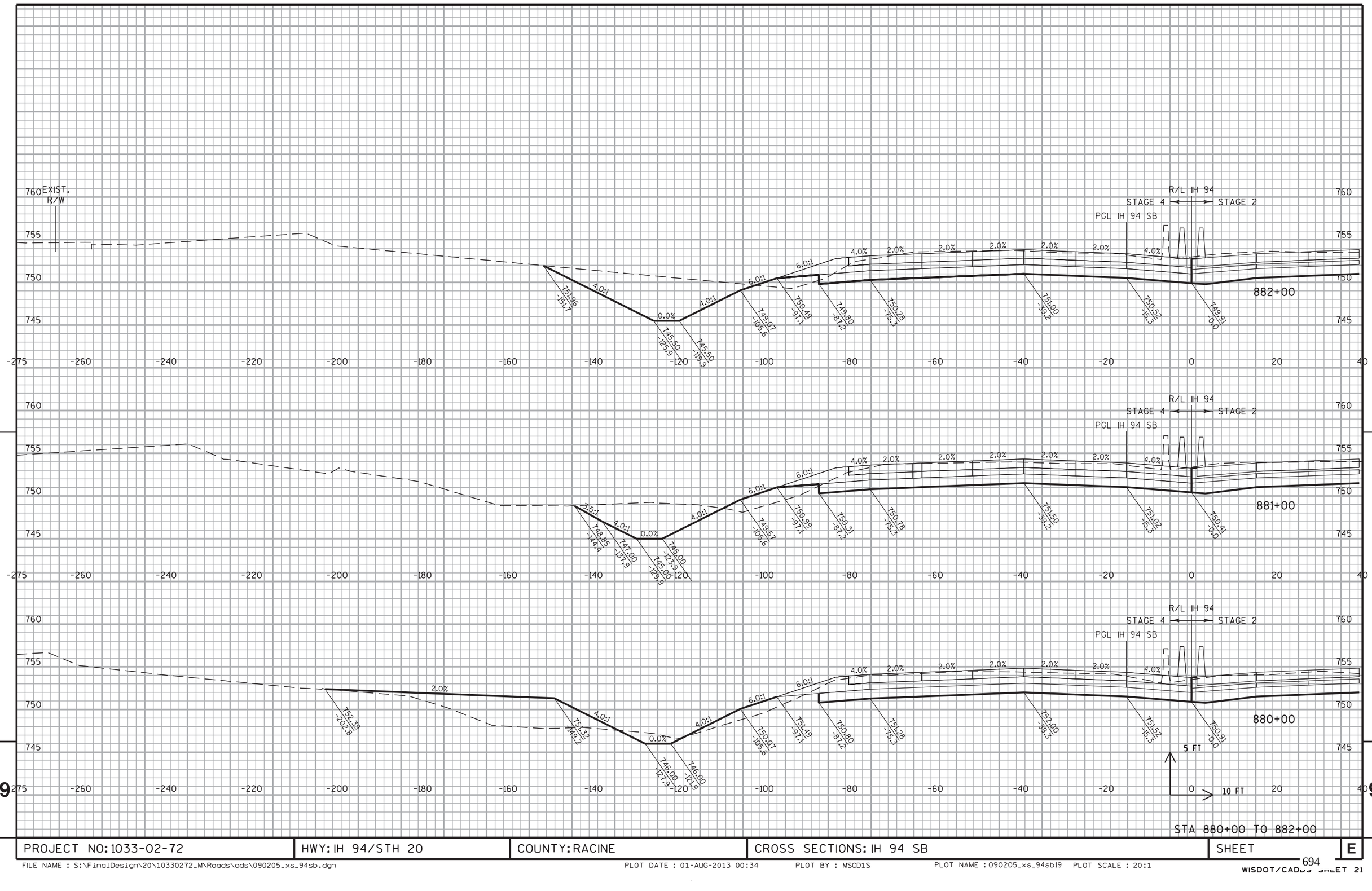
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

STA 877+00 TO 879+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090205_xs_94sb.dgn PLOT DATE : 01-AUG-2013 00:34 PLOT BY : MSCD1S PLOT NAME : 090205_xs_94sb18 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



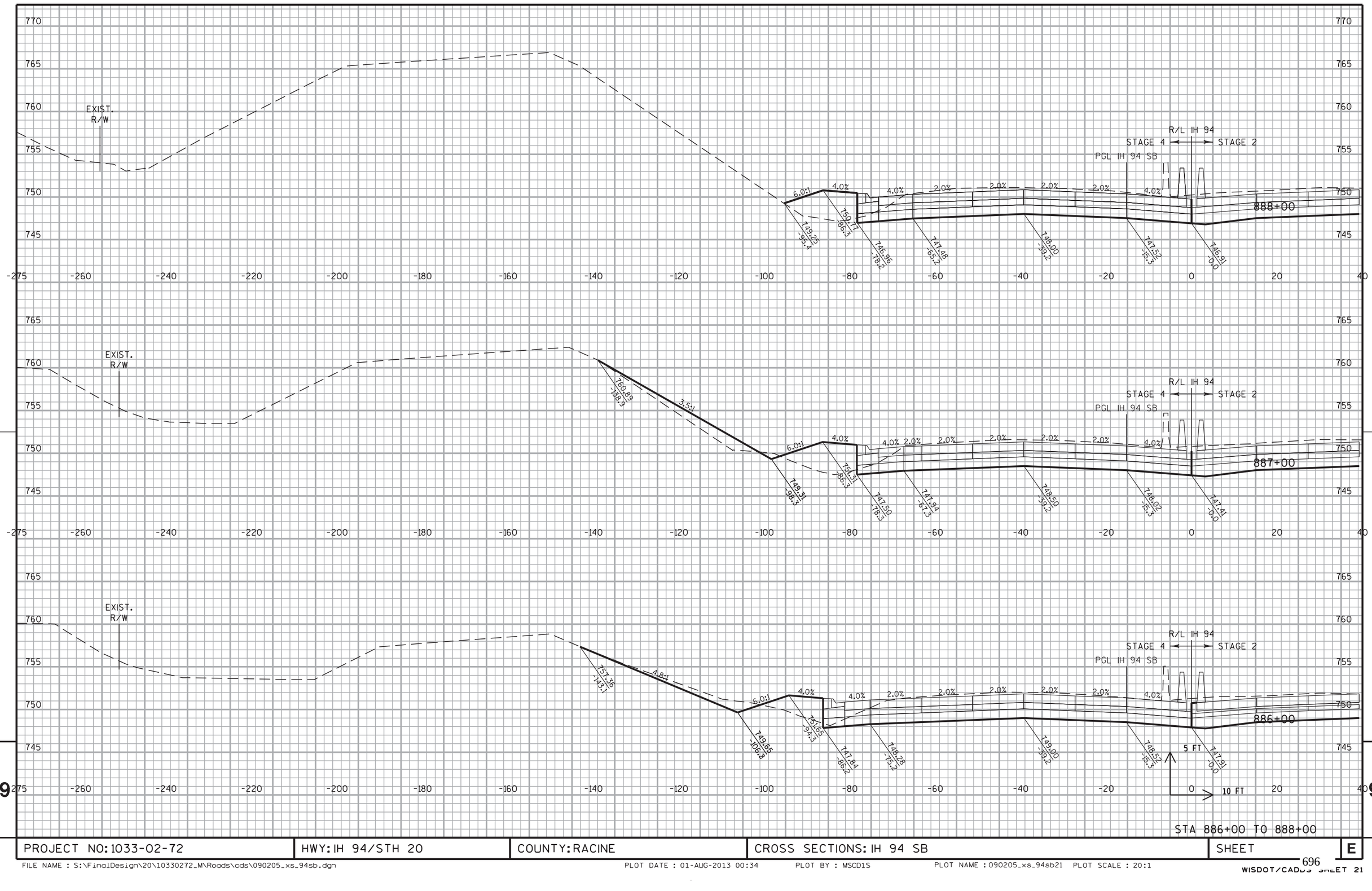
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090205_xs_94sb.dgn PLOT DATE : 01-AUG-2013 00:34 PLOT BY : MSCD1S PLOT NAME : 090205_xs_94sb19 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090205_xs_94sb.dgn PLOT DATE : 01-AUG-2013 00:34 PLOT BY : MSCD1S PLOT NAME : 090205_xs_94sb20 PLOT SCALE : 20:1

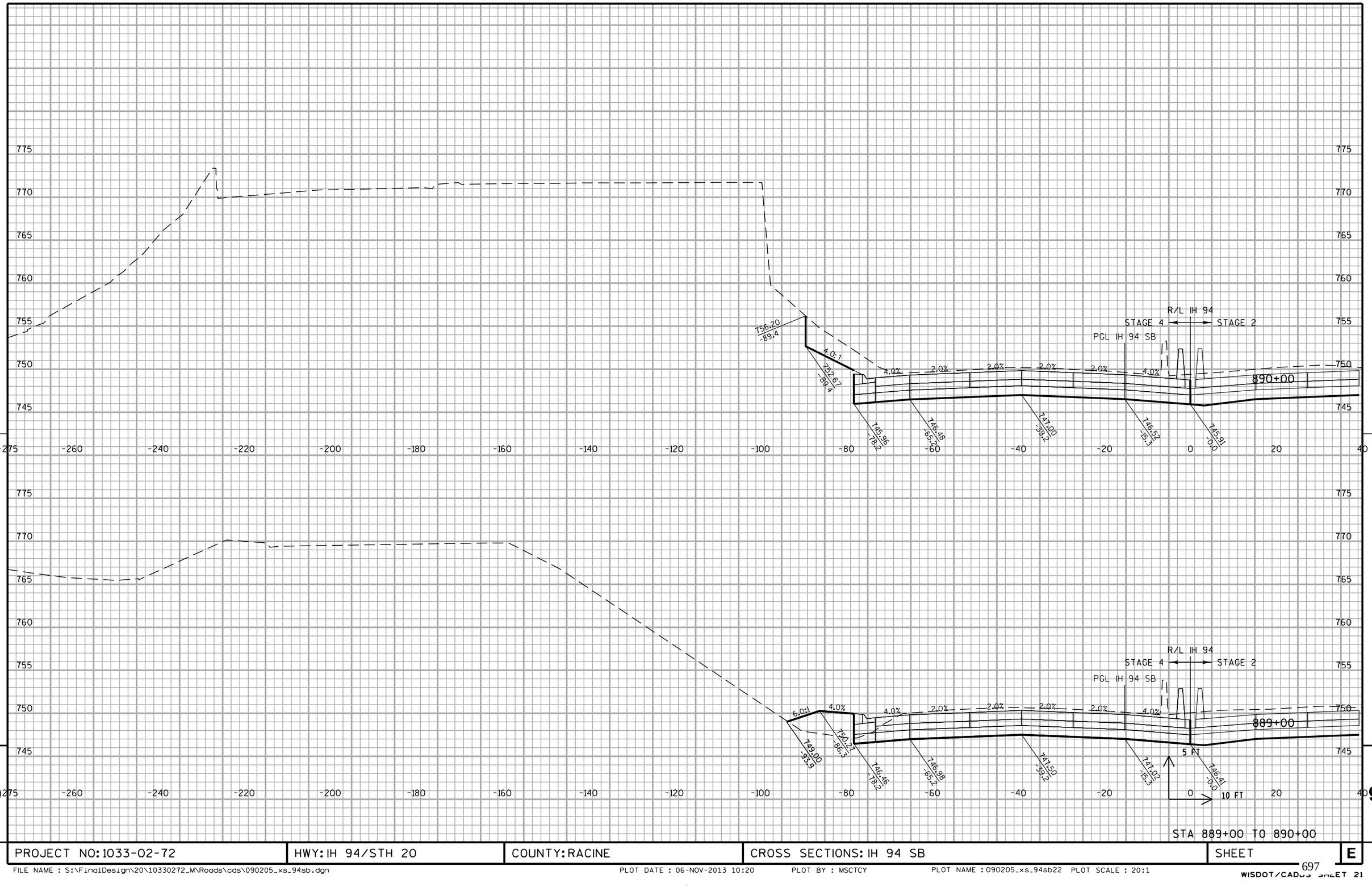


STA 886+00 TO 888+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

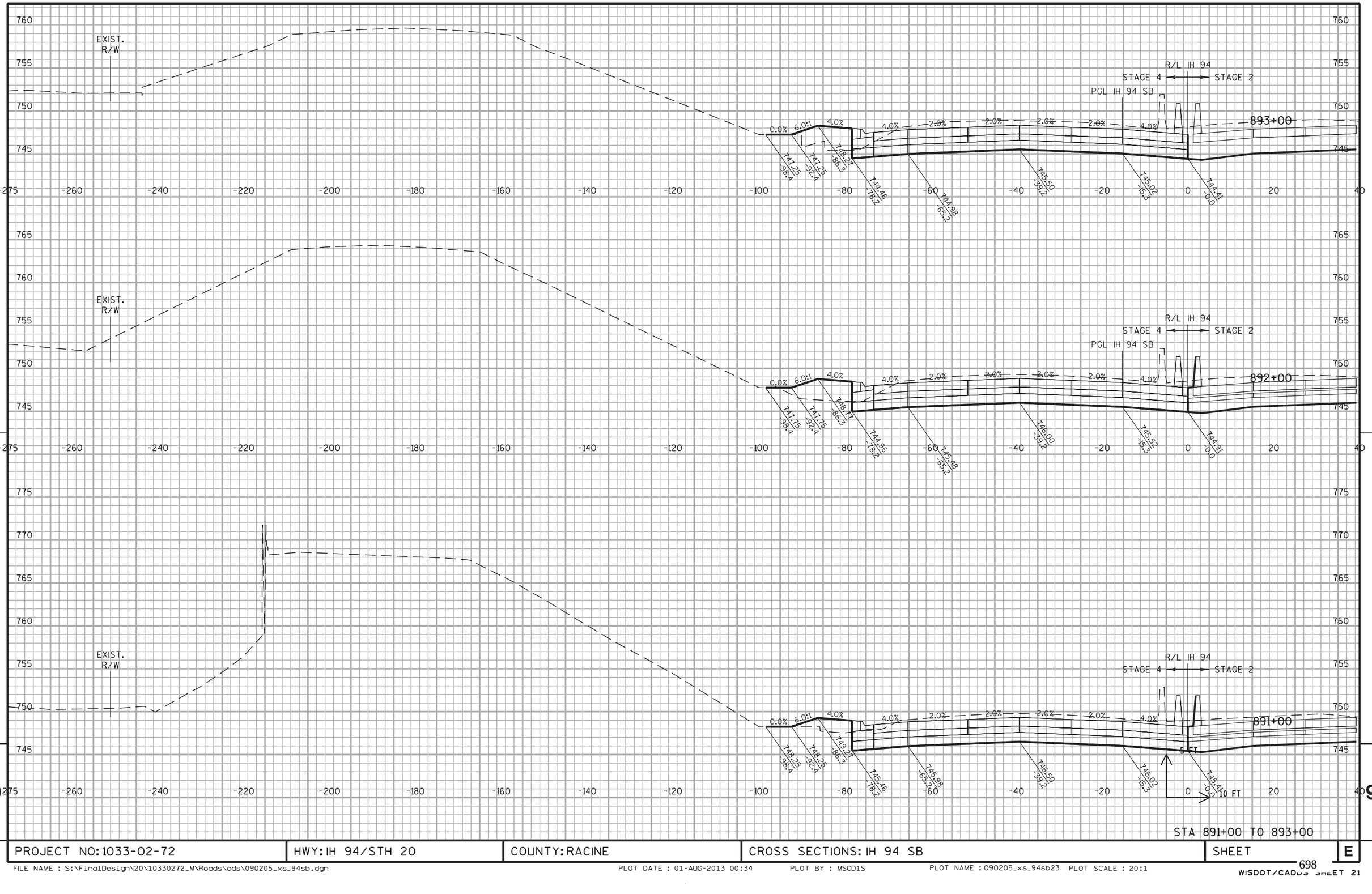
FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090205_xs_94sb.dgn PLOT DATE : 01-AUG-2013 00:34 PLOT BY : MSCD1S PLOT NAME : 090205_xs_94sb21 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

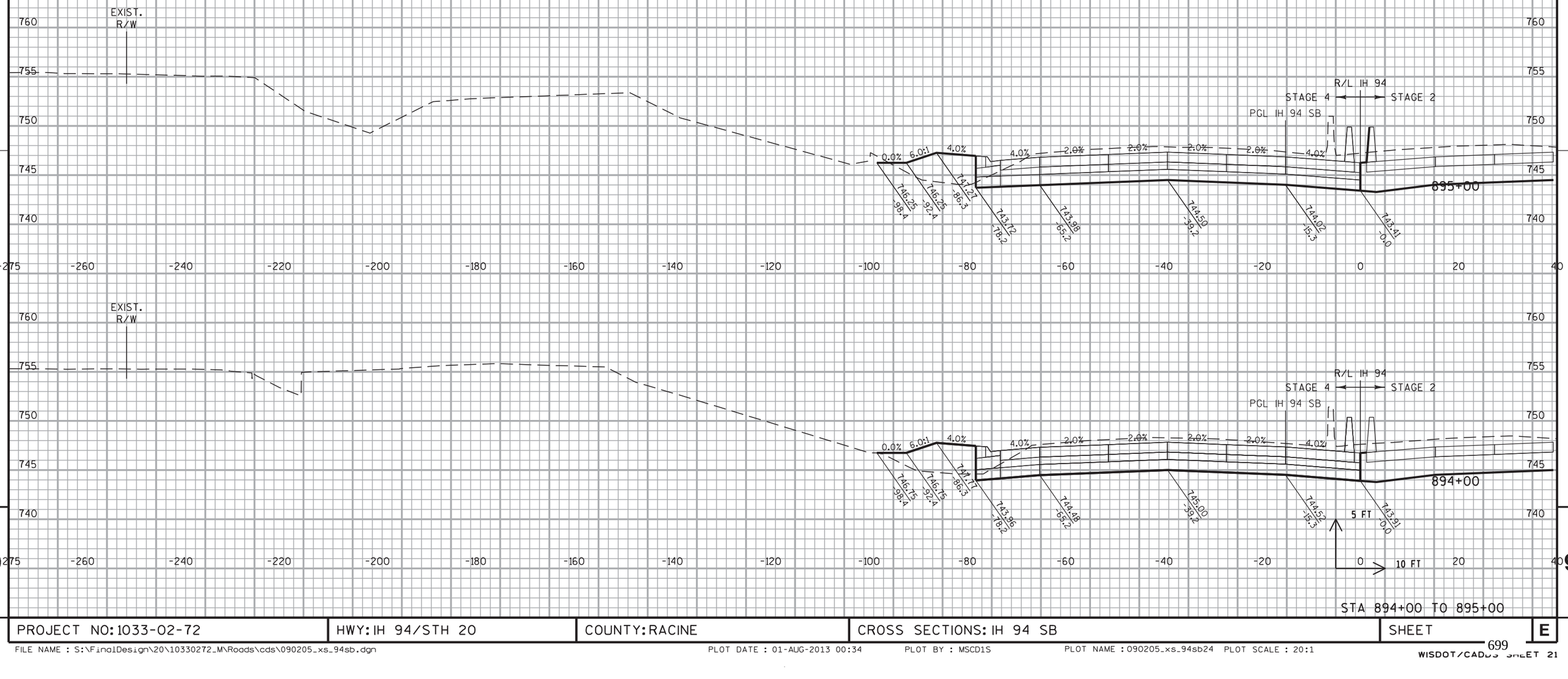
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STA 891+00 TO 893+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

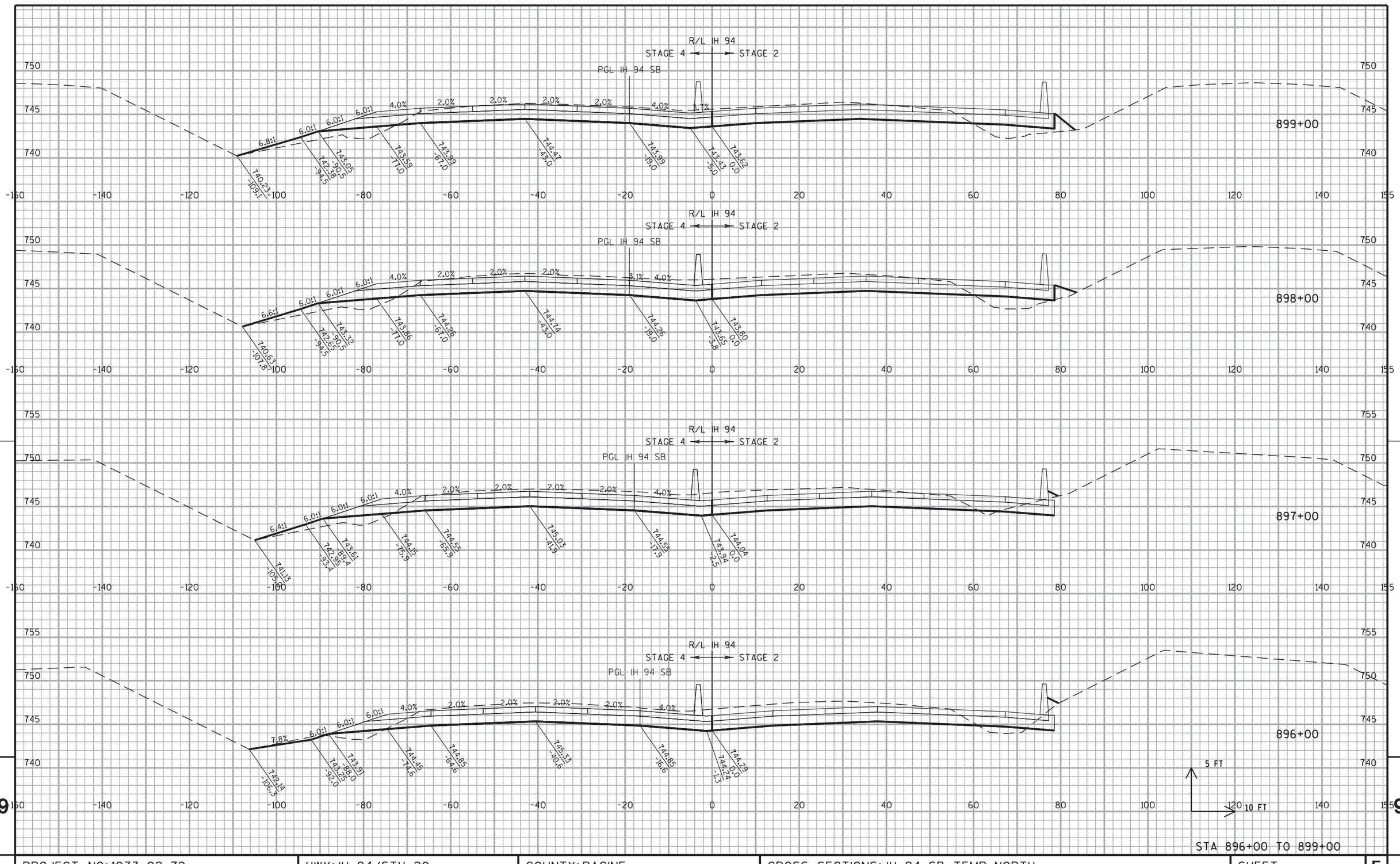
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090205_xs_94sb.dgn PLOT DATE : 01-AUG-2013 00:34 PLOT BY : MSCD1S PLOT NAME : 090205_xs_94sb24 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

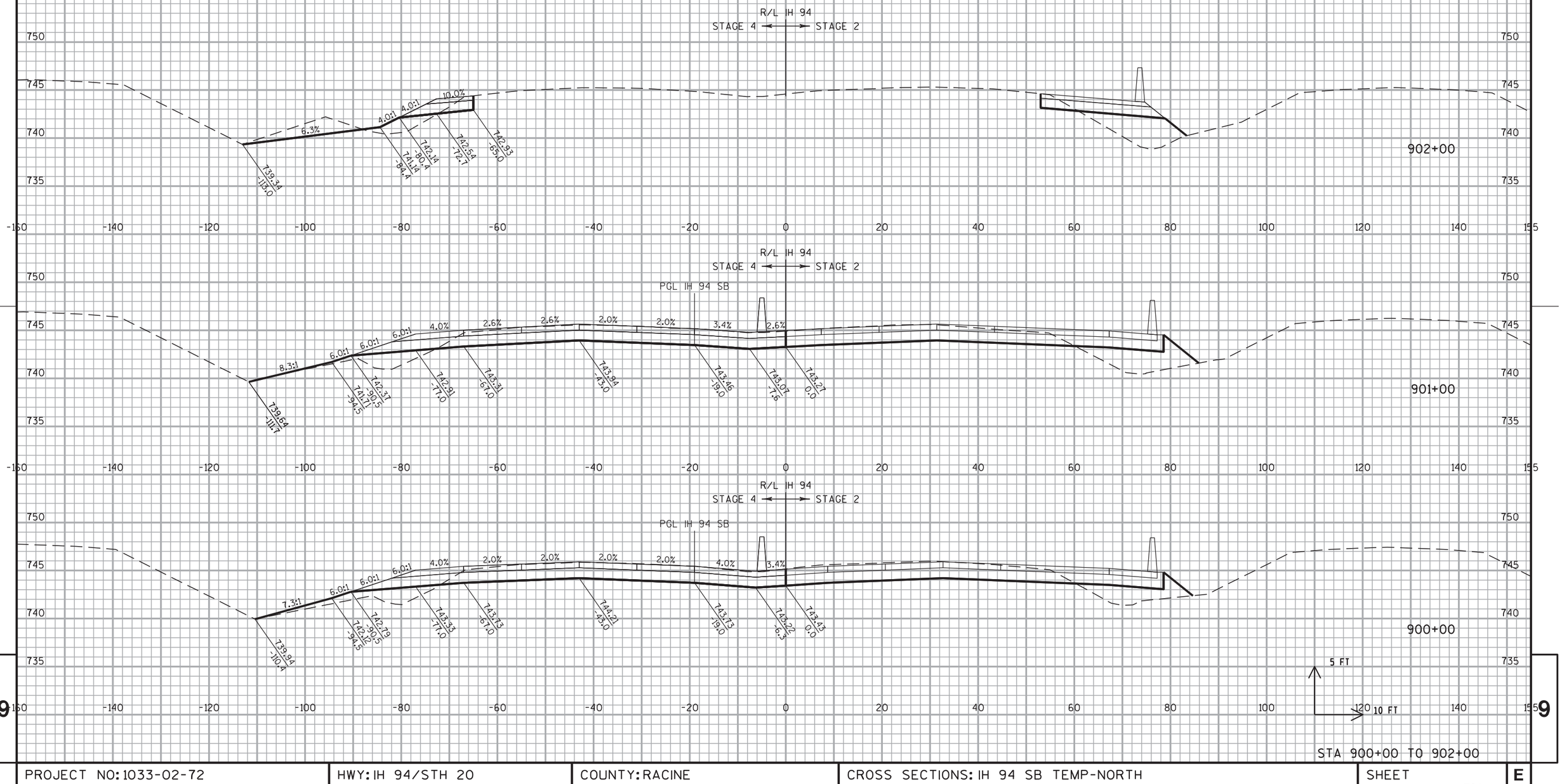


STA 896+00 TO 899+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB TEMP-NORTH	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090206_xs_94sb-temp-north.dgn PLOT DATE : 01-AUG-2013 00:35 PLOT BY : MSCD1S PLOT NAME : 090206_xs_94sb-temp-north.dgn PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

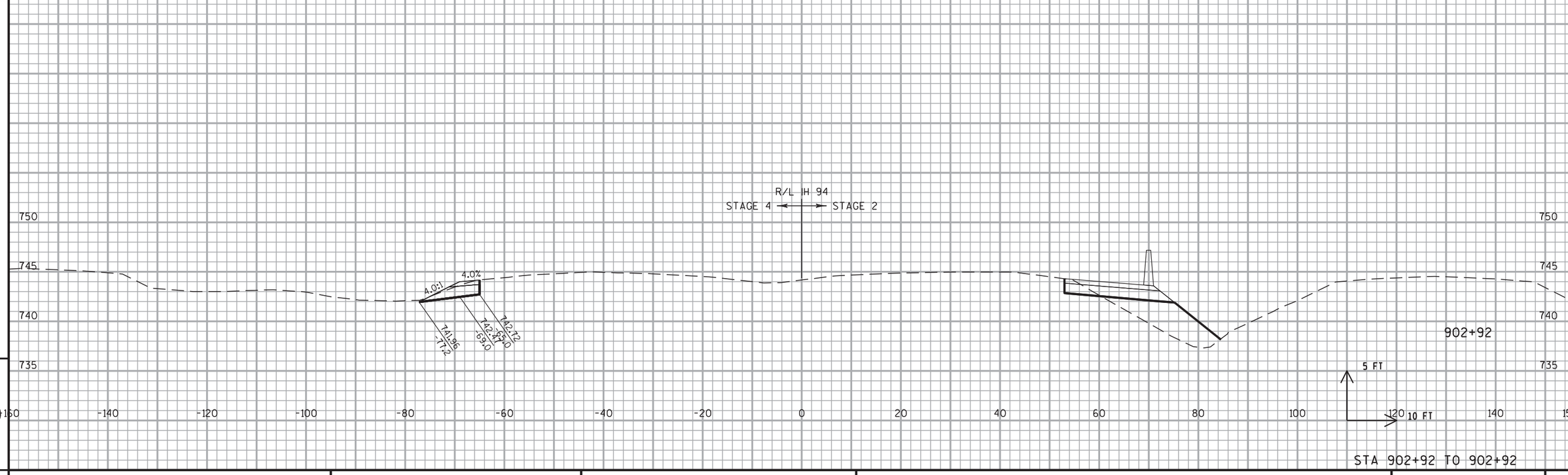


STA 900+00 TO 902+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB TEMP-NORTH	SHEET	E

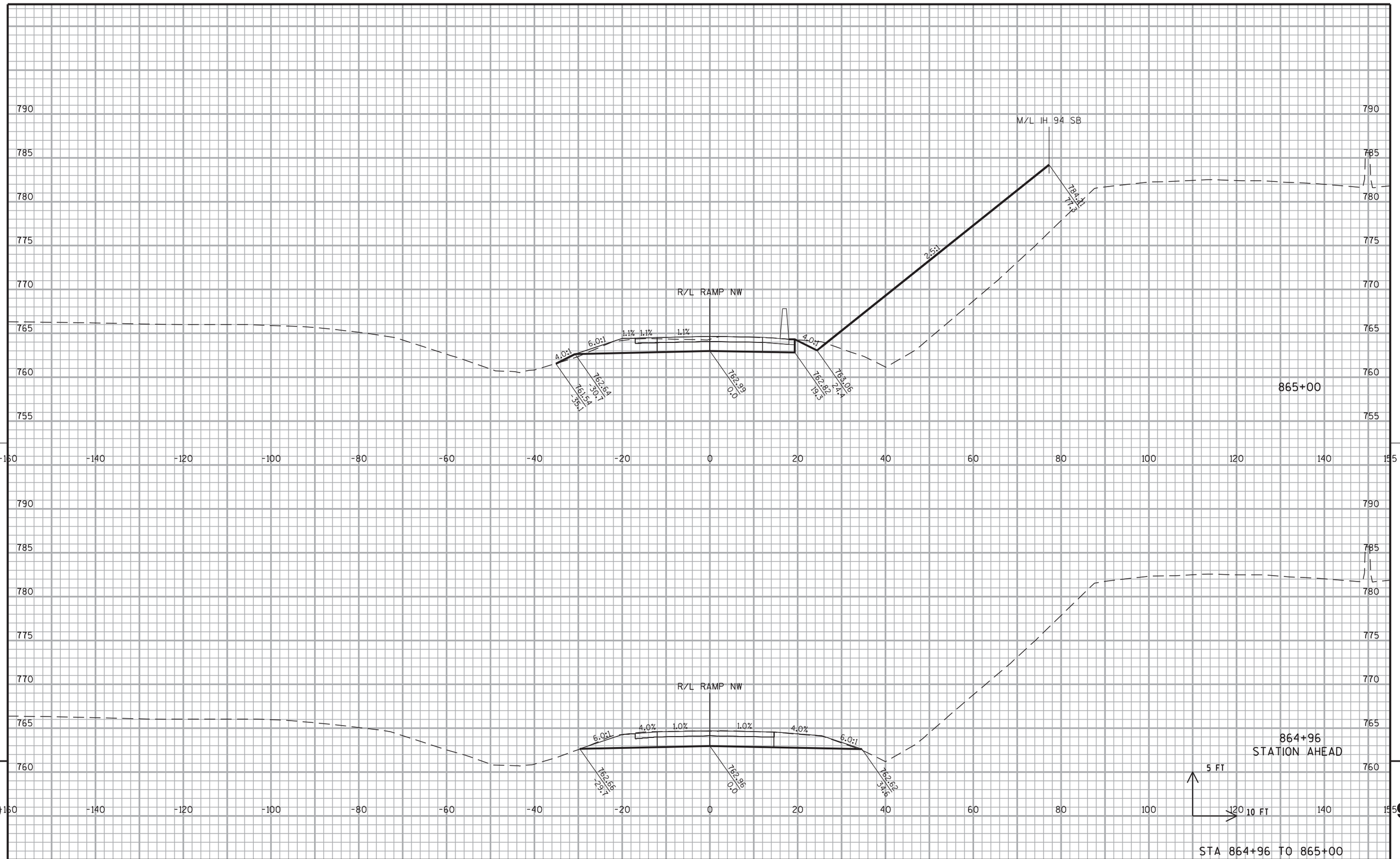
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WISDOT/CADDS SHEET 21



STA 902+92 TO 902+92

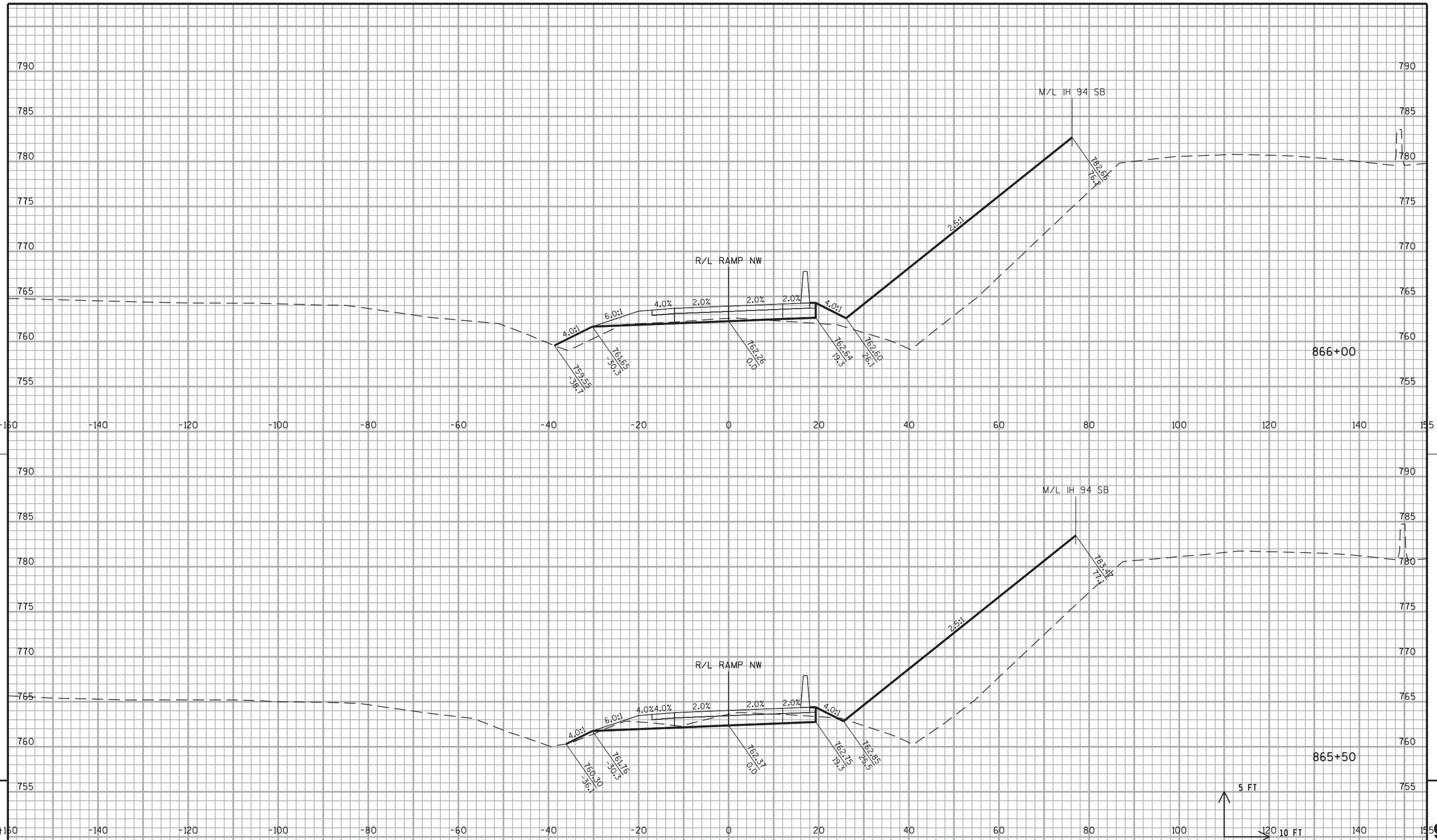
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB TEMP-NORTH	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NW	SHEET	E

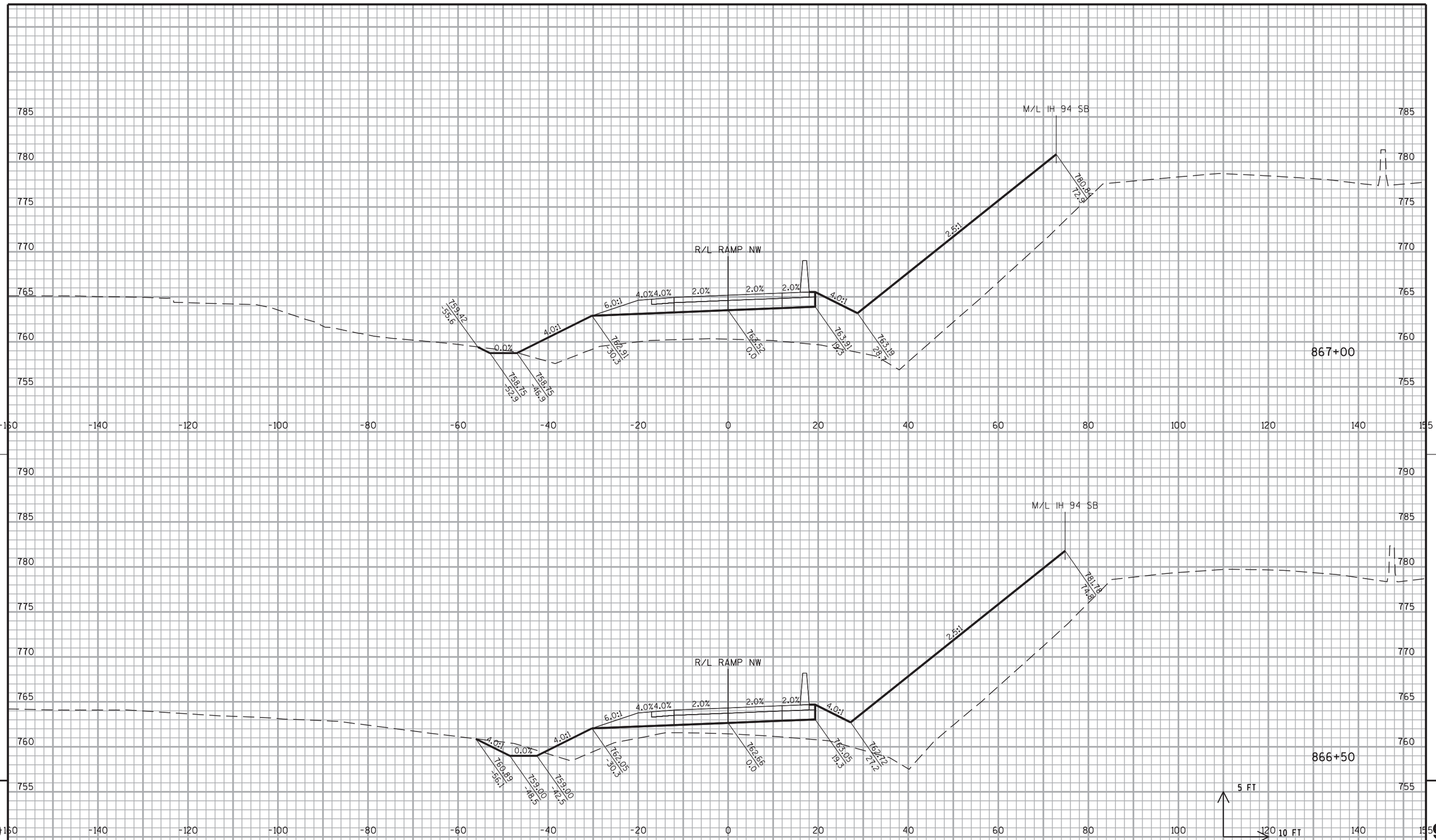
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WISDOT/CADDS SHEET 21



STA 865+50 TO 866+00

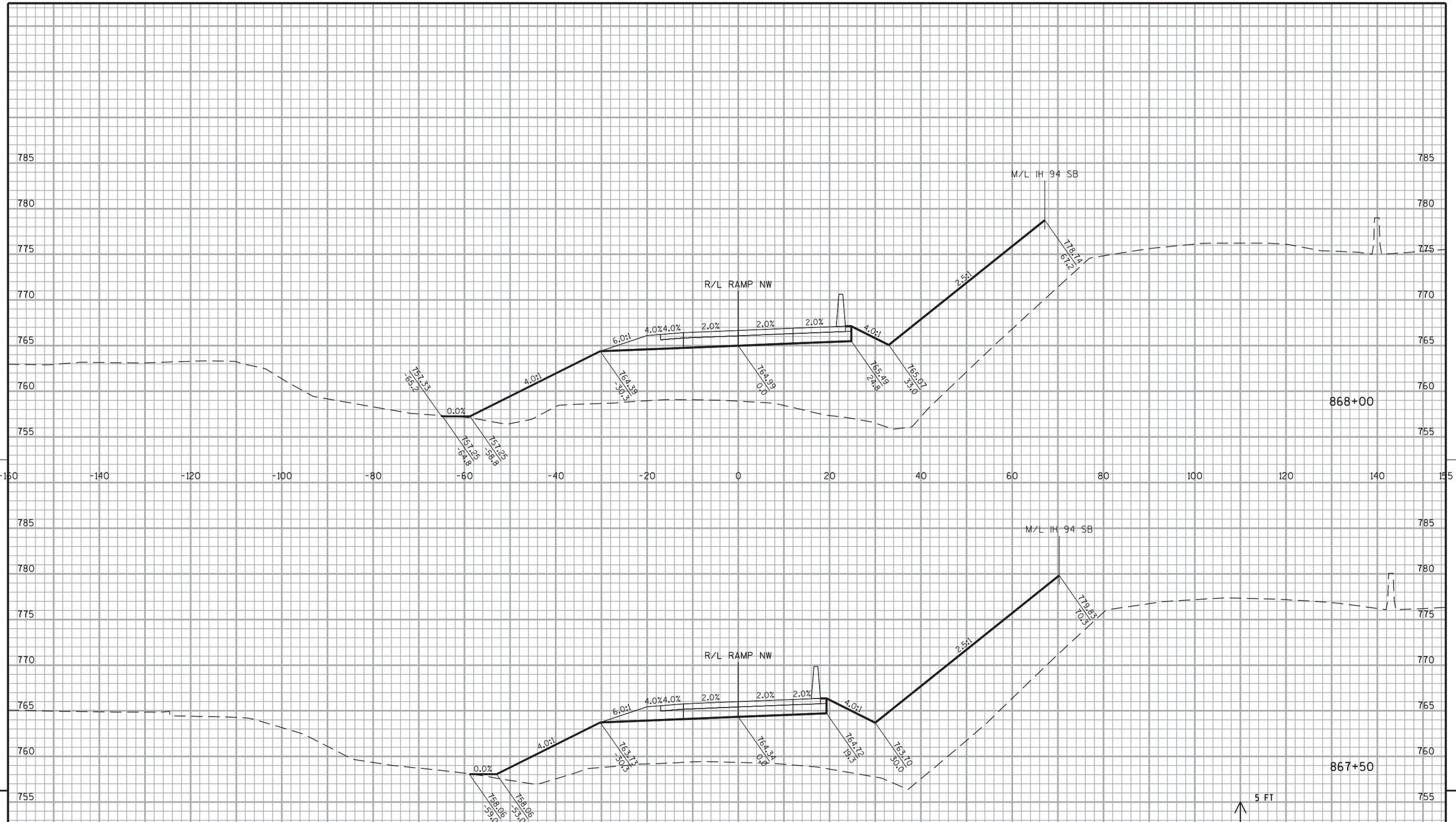
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NW	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NW	SHEET	E

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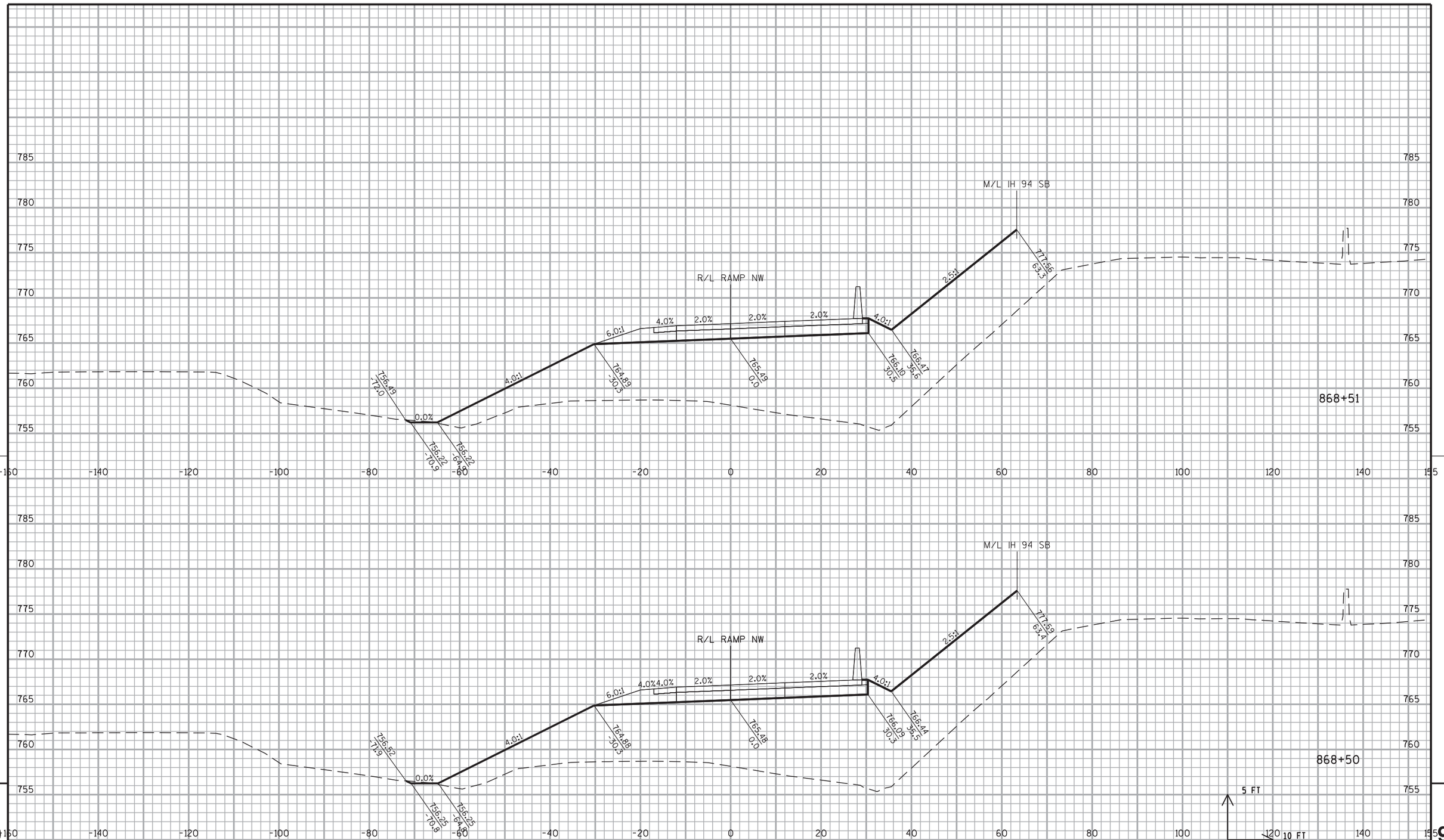
WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NW	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090207_xs_rampnw-temp-match.dgn PLOT DATE : 01-AUG-2013 00:35 PLOT BY : MSCD1S PLOT NAME : 090207_xs_rampnw-temp-match.pdf PLOT SCALE : 20:1

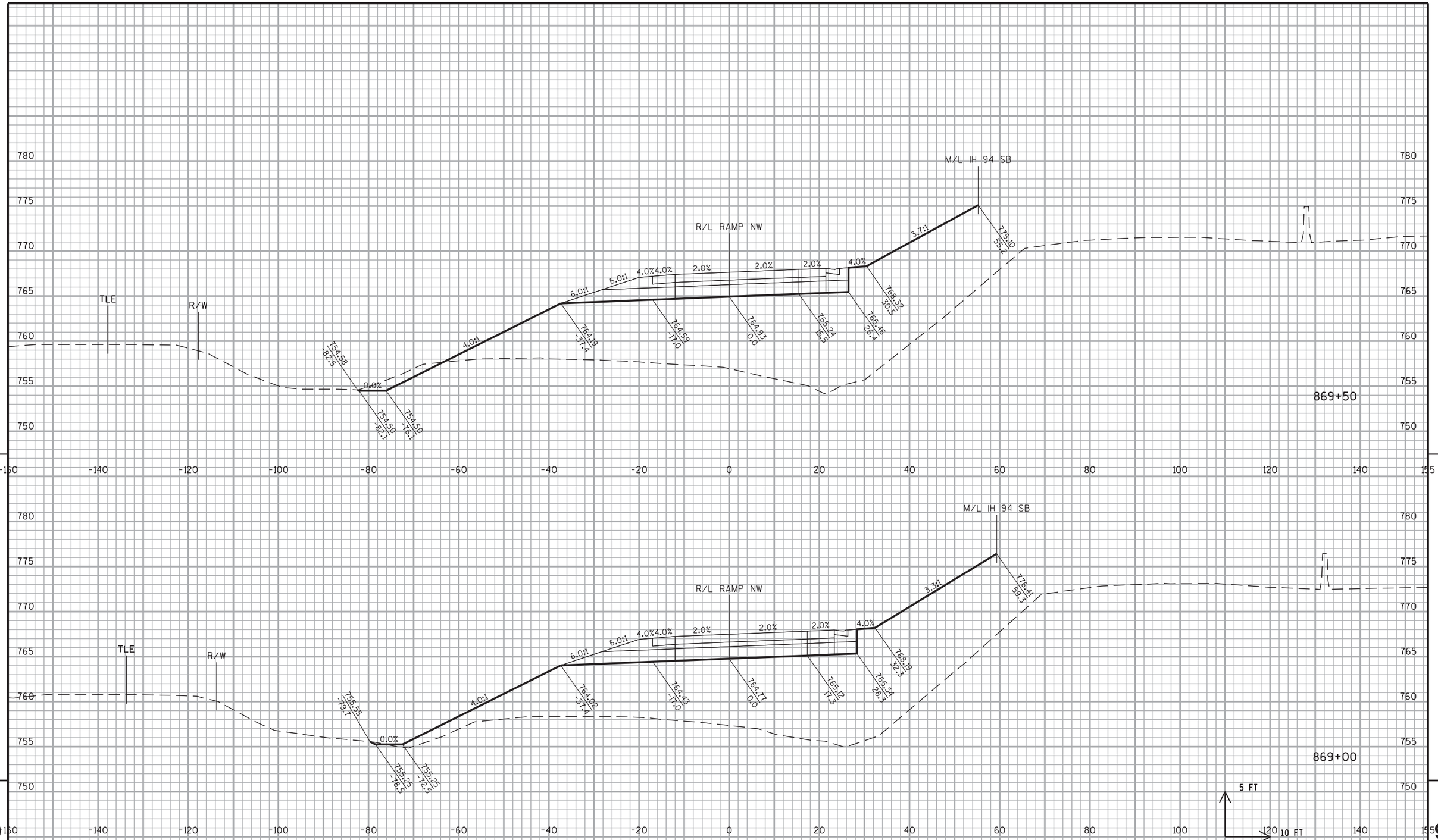
WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NW	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090207_xs_rampnw-temp-match.dgn PLOT DATE : 01-AUG-2013 00:35 PLOT BY : MSCD1S PLOT NAME : 090207_xs_rampnw-temp-match.dgn PLOT SCALE : 20:1

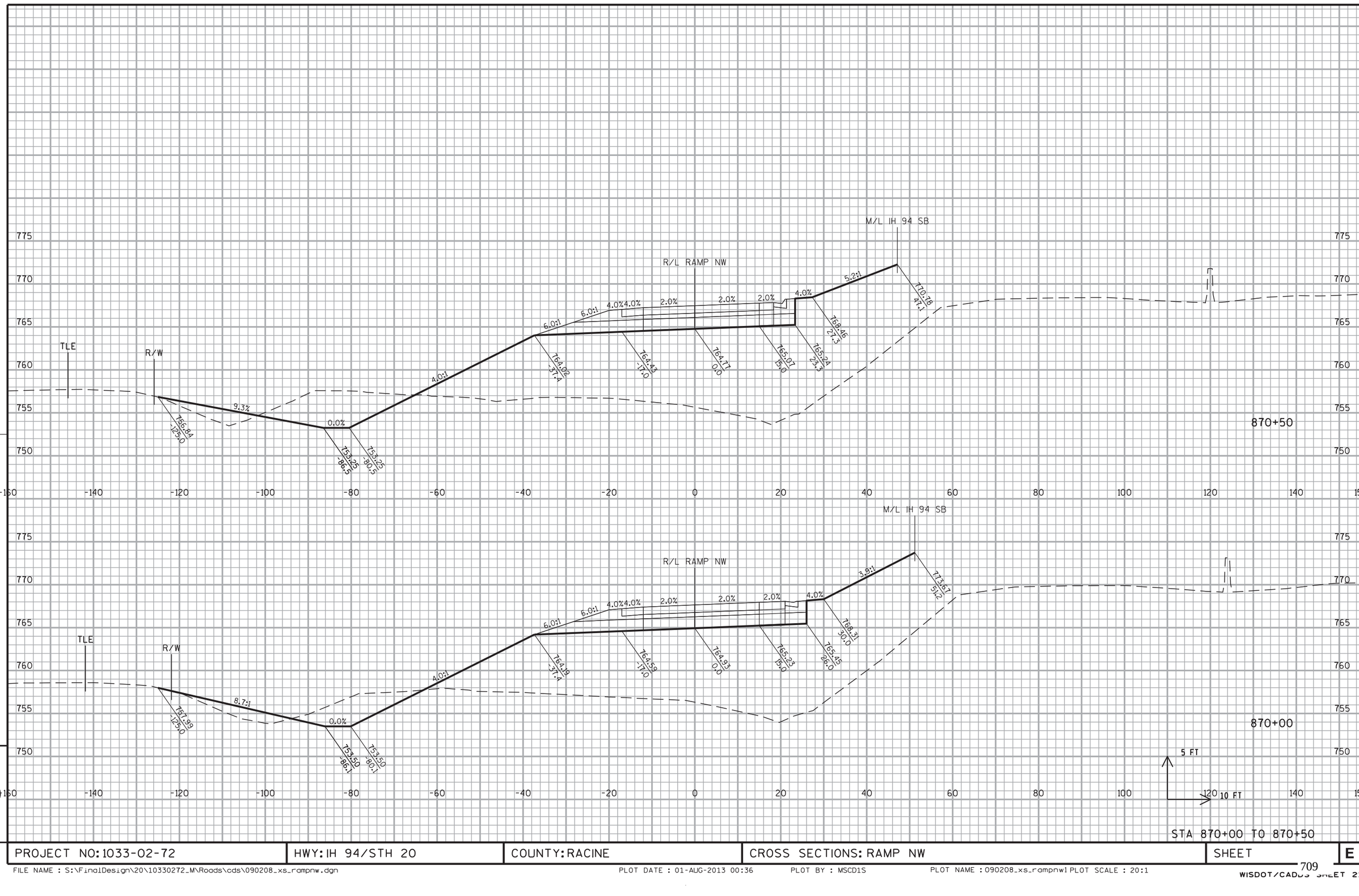
WISDOT/CADDS SHEET 21



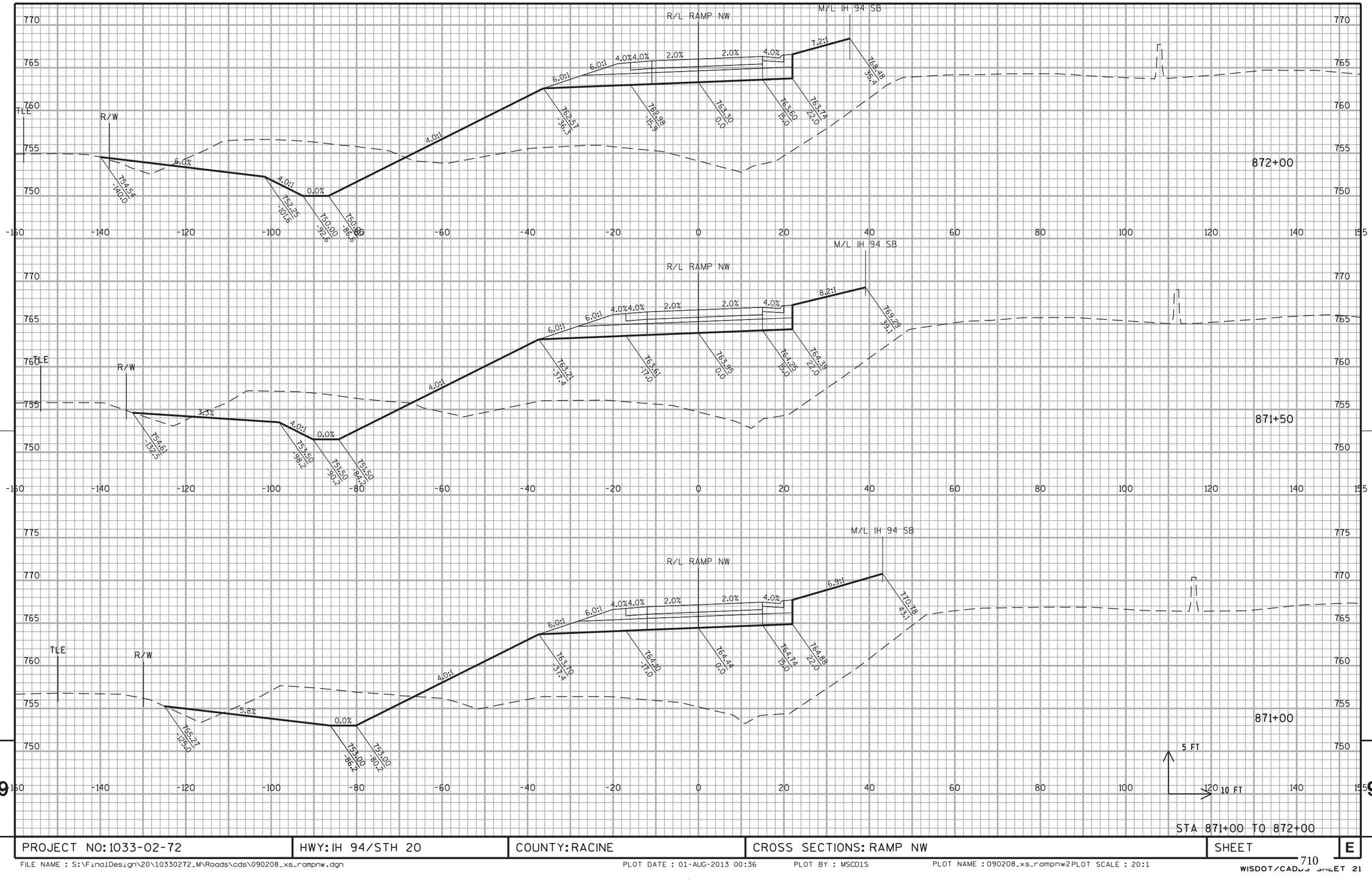
STA 869+00 TO 869+50

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NW	SHEET	E

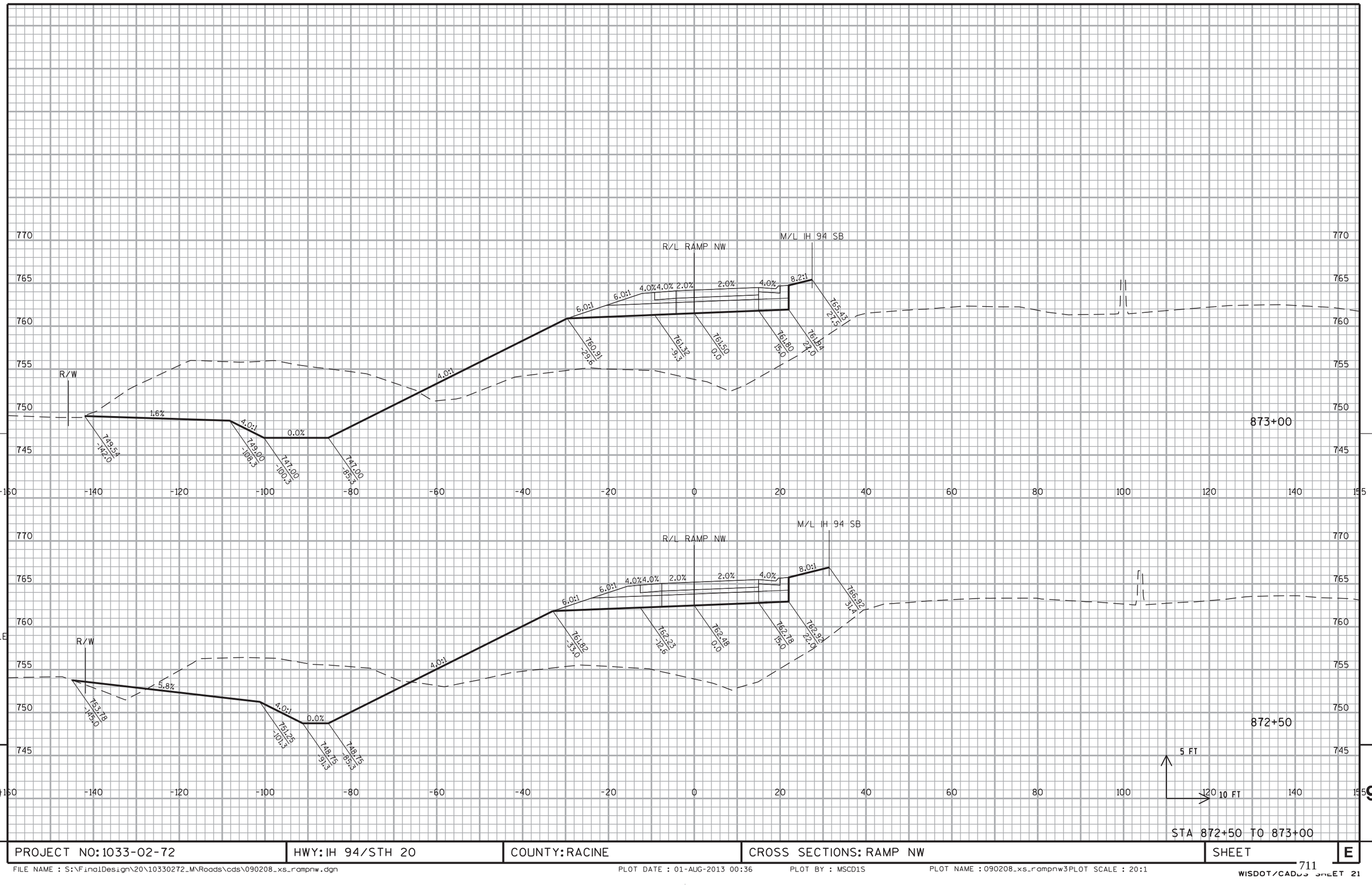
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NW	SHEET	E



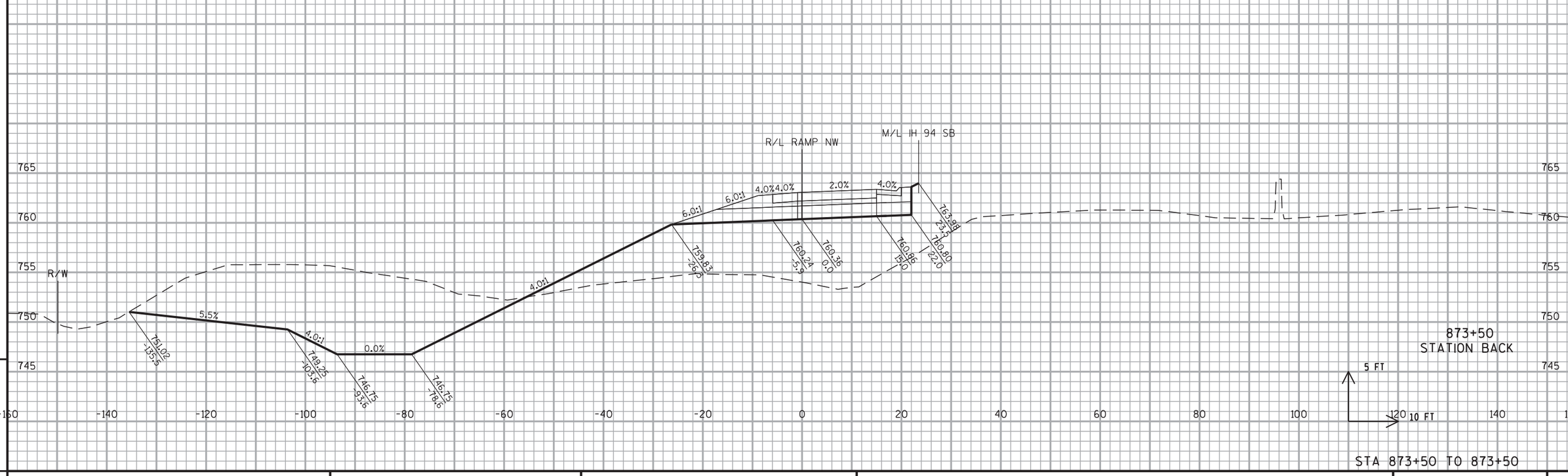
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NW	SHEET	E

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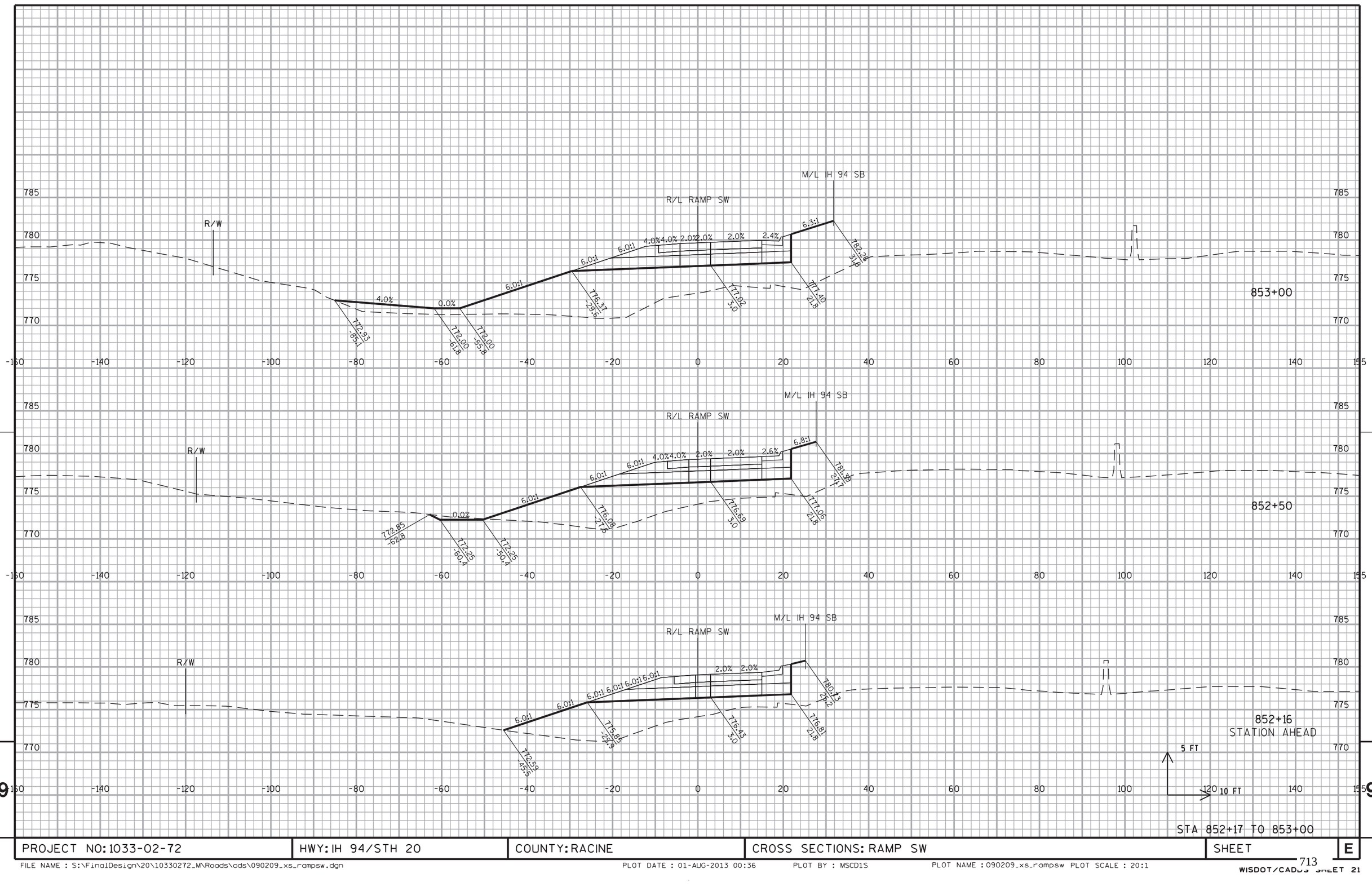
WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NW	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090208_xs_rampnw.dgn PLOT DATE : 01-AUG-2013 00:36 PLOT BY : MSCD1S PLOT NAME : 090208_xs_rampnw4PLOT SCALE : 20:1

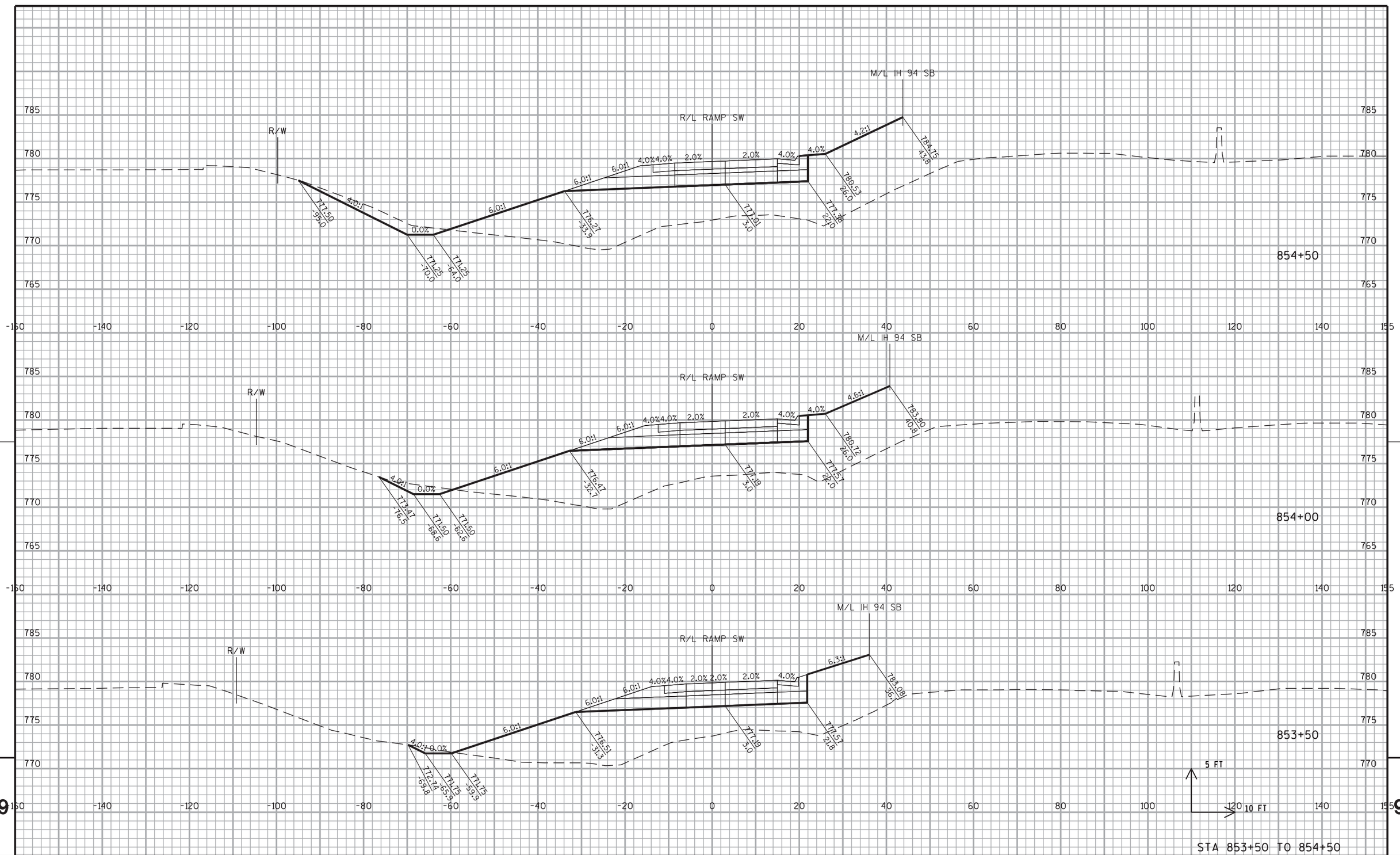
WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SW	SHEET	E

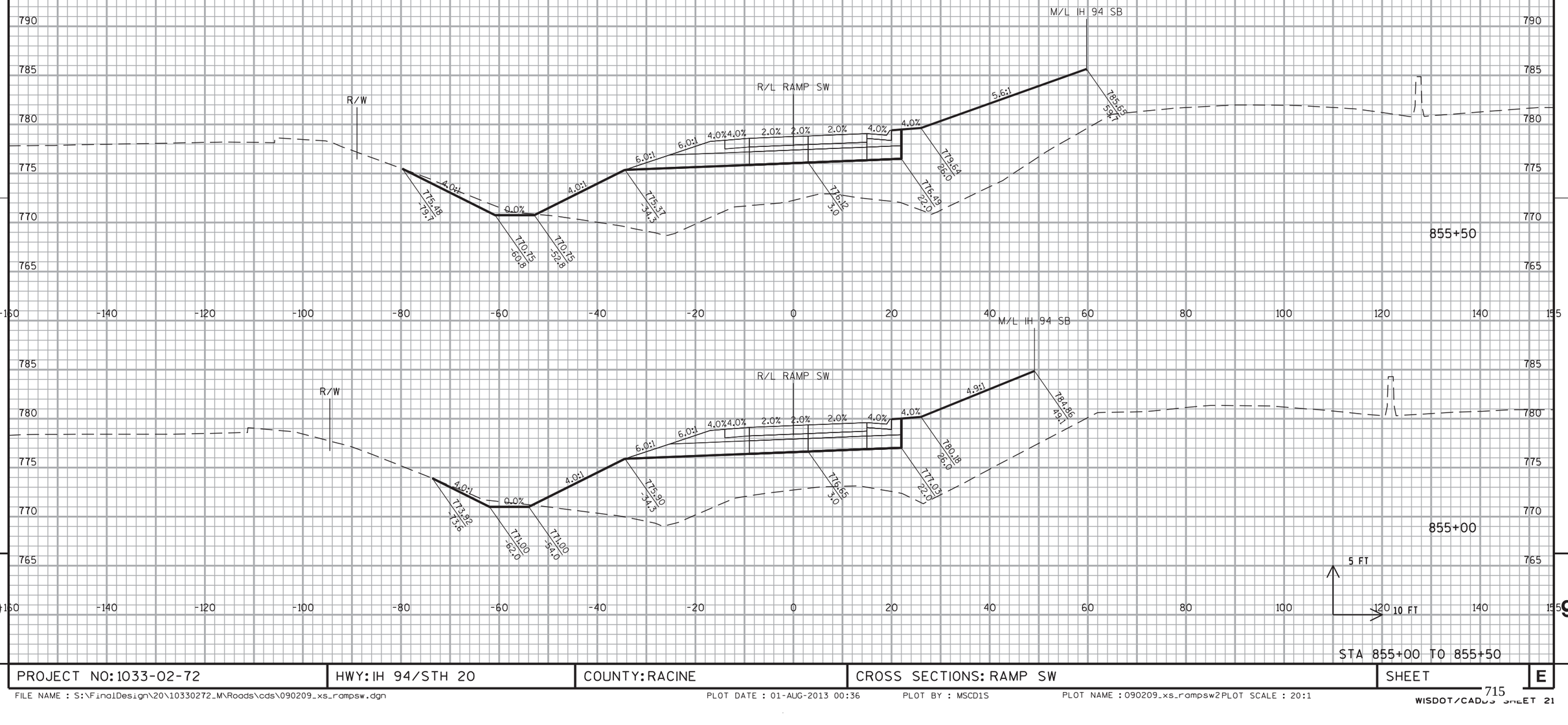
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WISDOT/CADDS SHEET 21



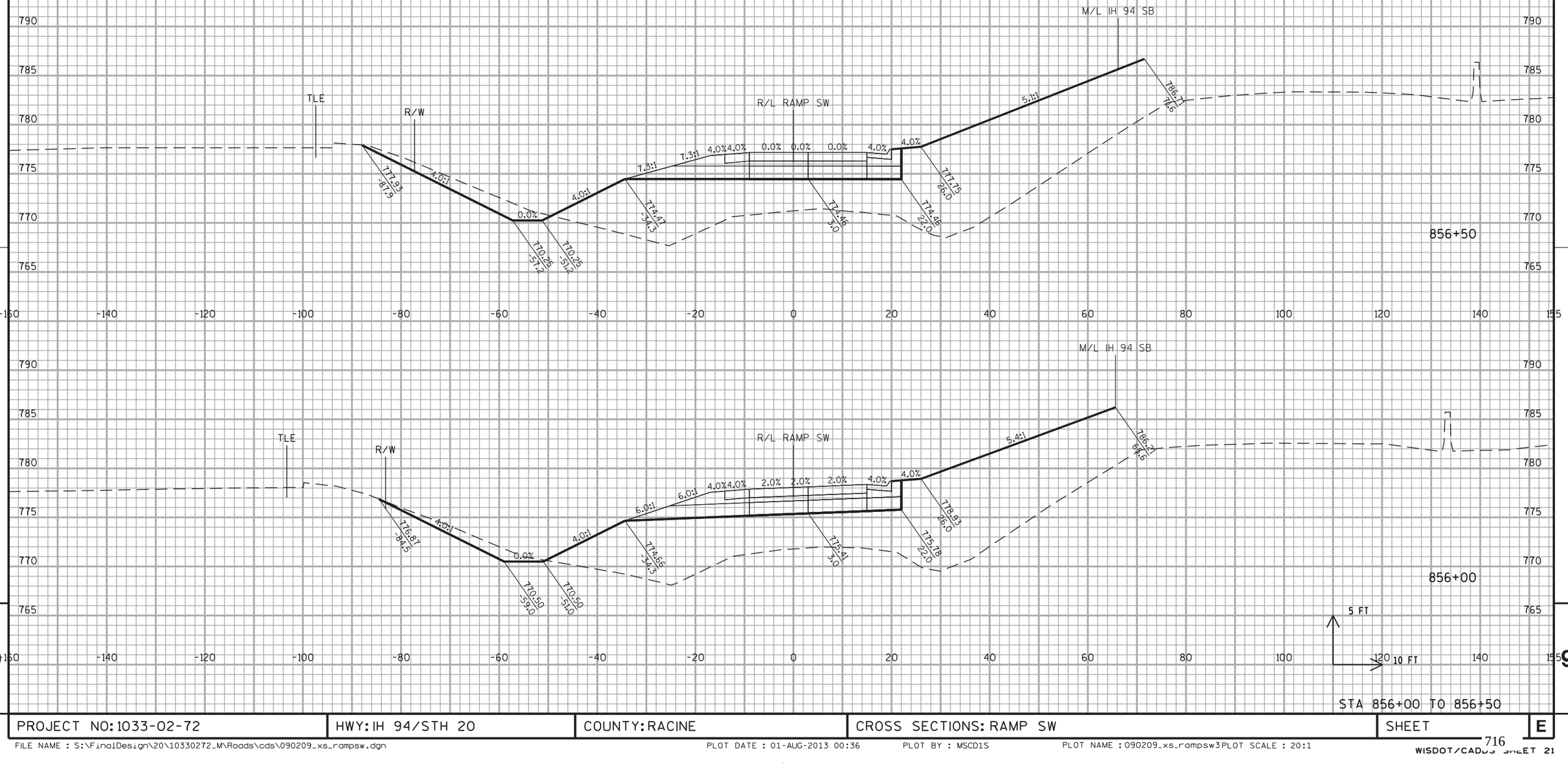
STA 853+50 TO 854+50

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACIRE	CROSS SECTIONS: RAMP SW	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SW	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090209_xs_rampsw.dgn PLOT DATE : 01-AUG-2013 00:36 PLOT BY : MSCD1S PLOT NAME : 090209_xs_rampsw2 PLOT SCALE : 20:1

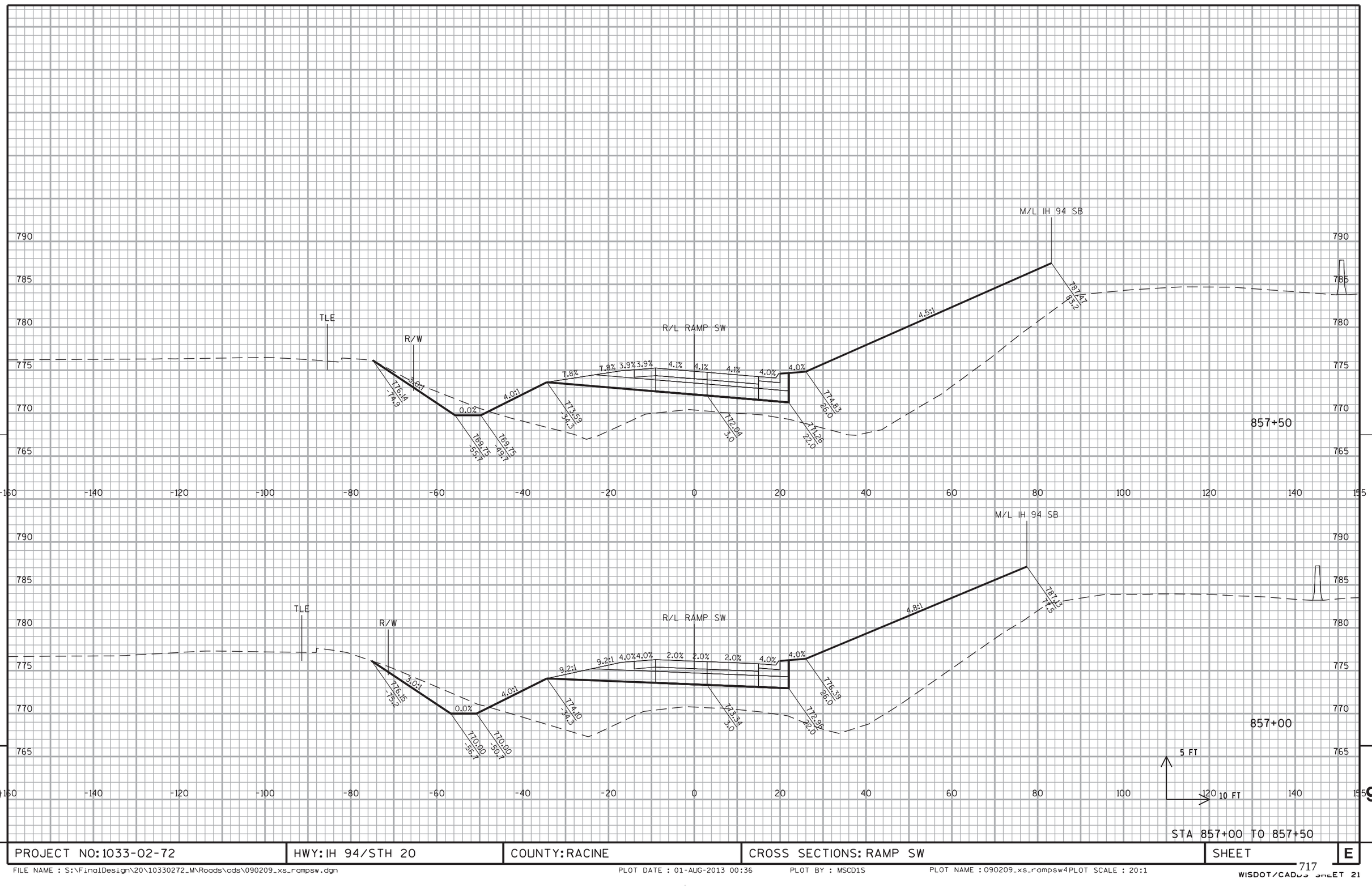


STA 856+00 TO 856+50

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SW	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090209_xs_rampsw.dgn PLOT DATE : 01-AUG-2013 00:36 PLOT BY : MSCD1S PLOT NAME : 090209_xs_rampsw3PLOT SCALE : 20:1

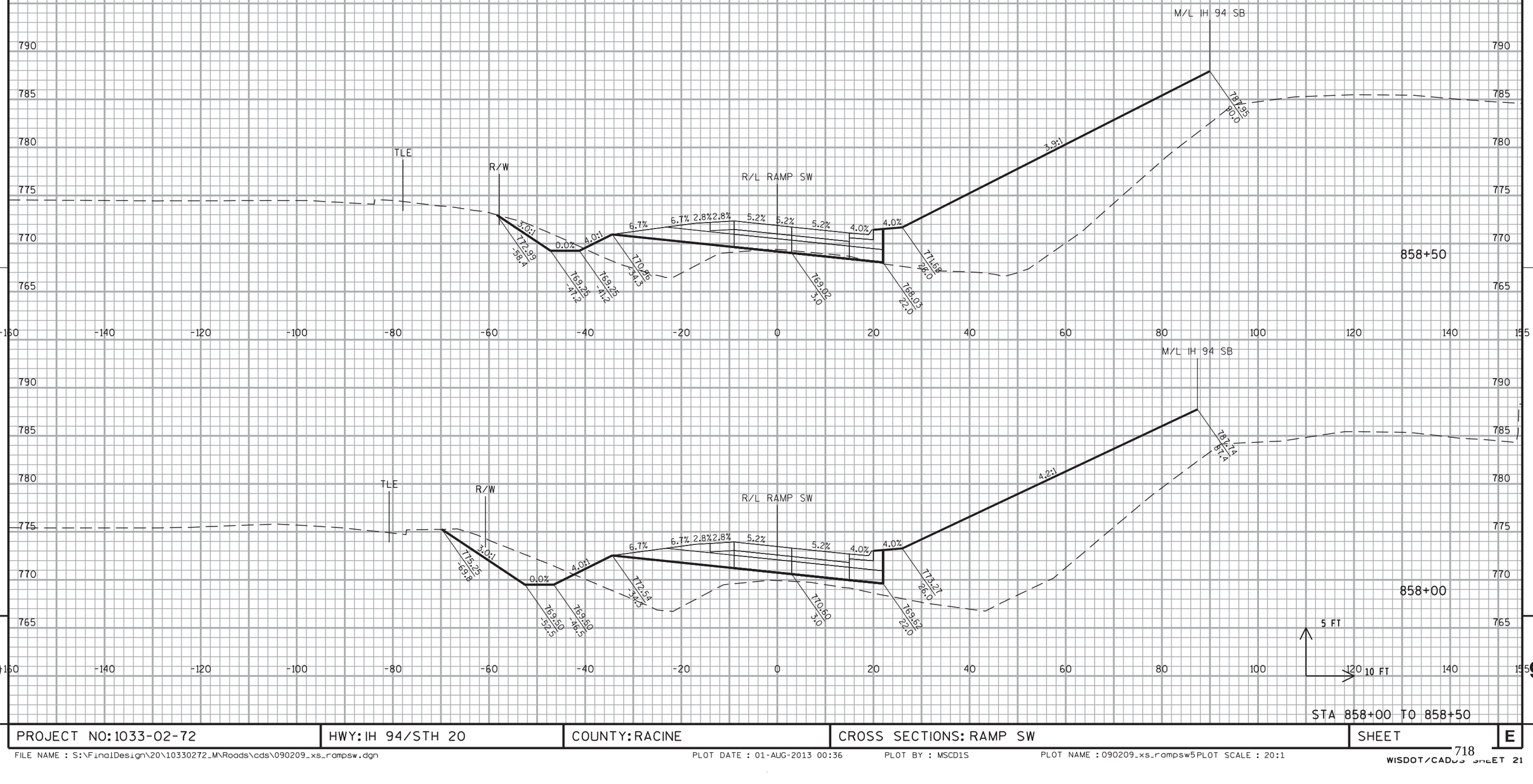
WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SW	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090209_xs_rampsw.dgn PLOT DATE : 01-AUG-2013 00:36 PLOT BY : MSCD1S PLOT NAME : 090209_xs_rampsw4PLOT SCALE : 20:1

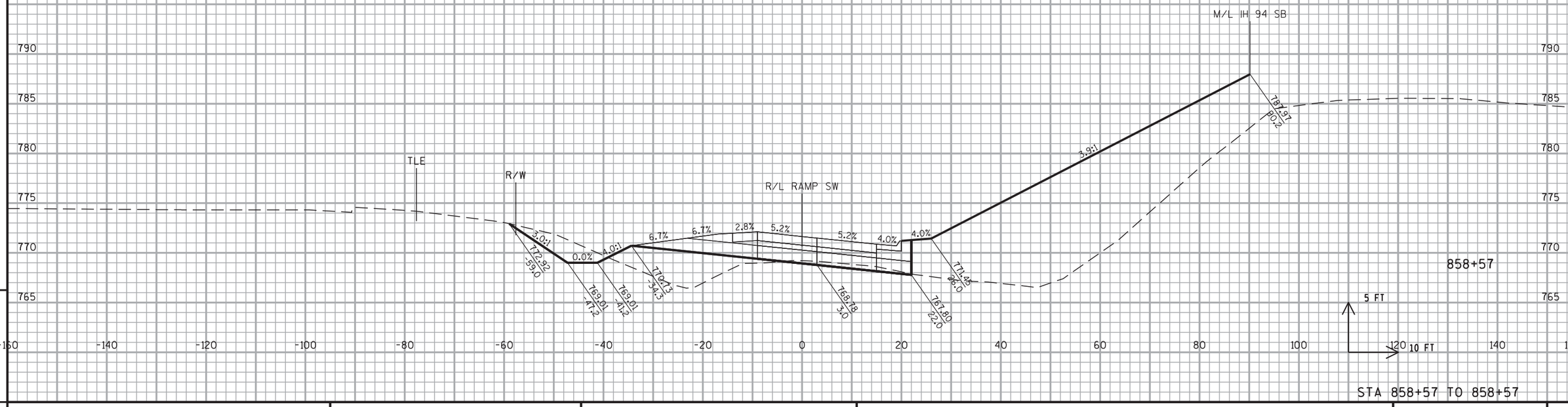
WISDOT/CADDS SHEET 21



STA 858+00 TO 858+50

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SW	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090209_xs_rampsw.dgn PLOT DATE : 01-AUG-2013 00:36 PLOT BY : MSCD1S PLOT NAME : 090209_xs_rampsw5 PLOT SCALE : 20:1

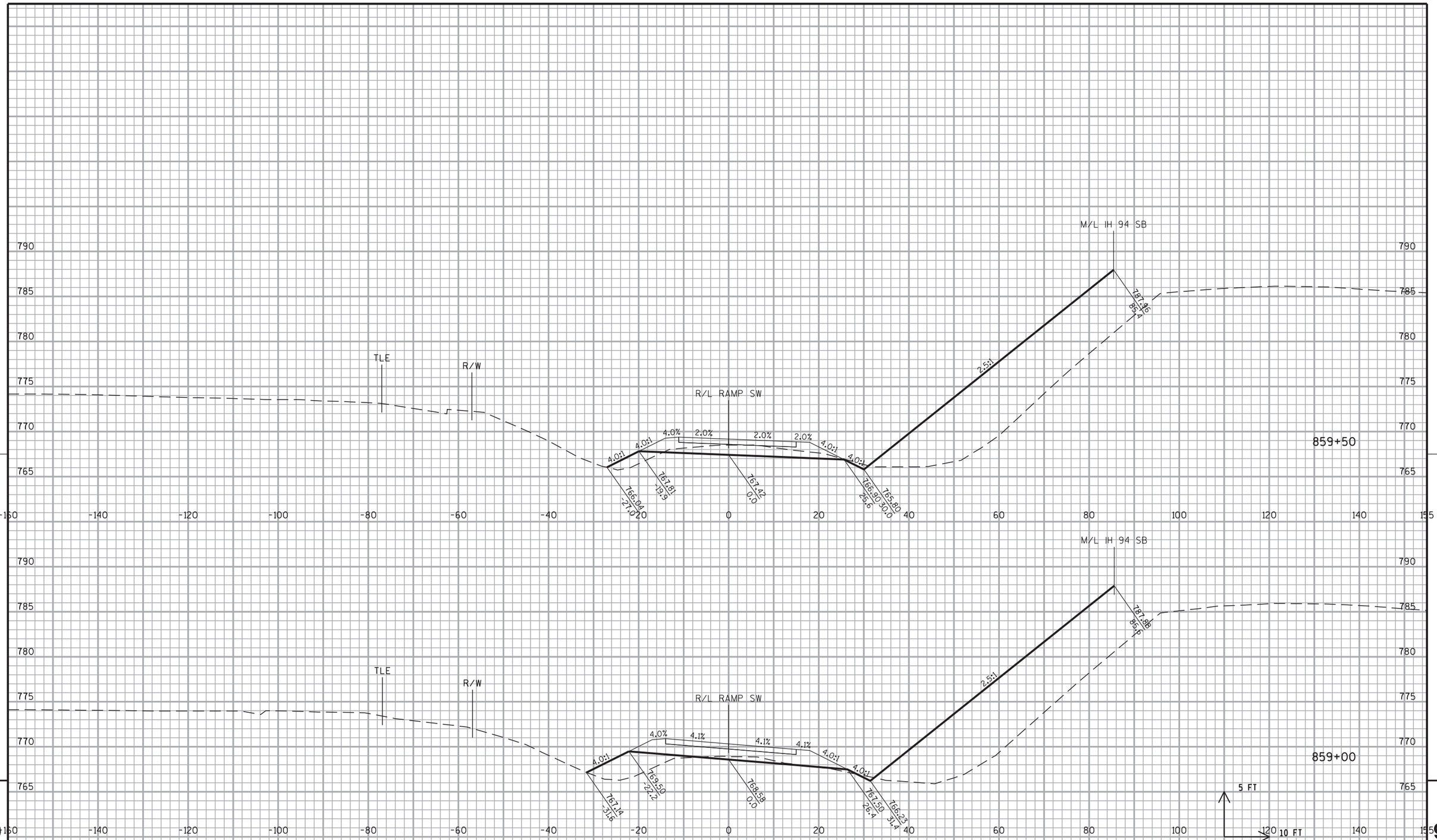


STA 858+57 TO 858+57

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SW	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090209_xs_rampsw.dgn PLOT DATE : 01-AUG-2013 00:36 PLOT BY : MSCD1S PLOT NAME : 090209_xs_rampsw6 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

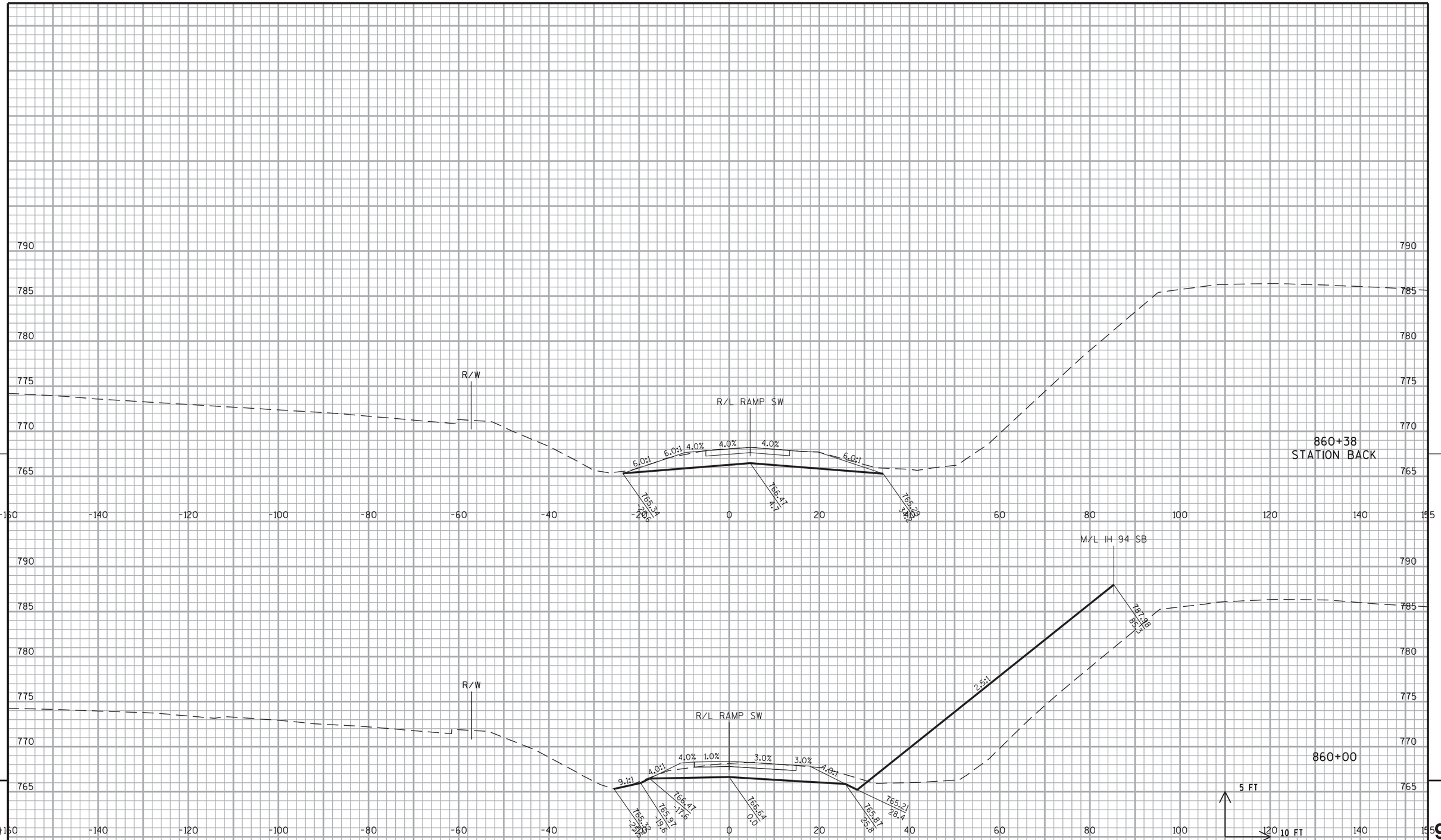


STA 859+00 TO 859+50

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SW	SHEET	E

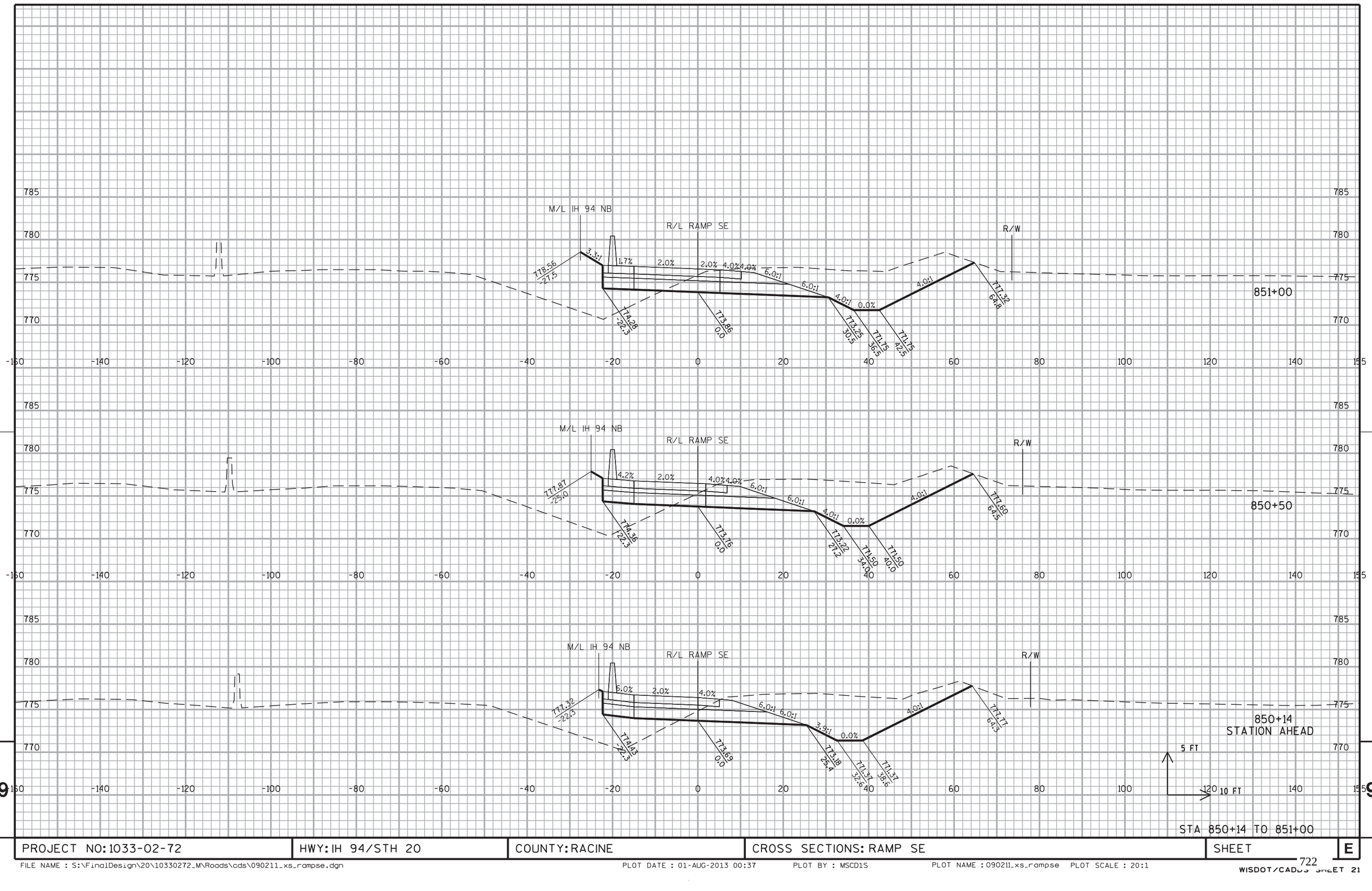
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WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SW	SHEET	E

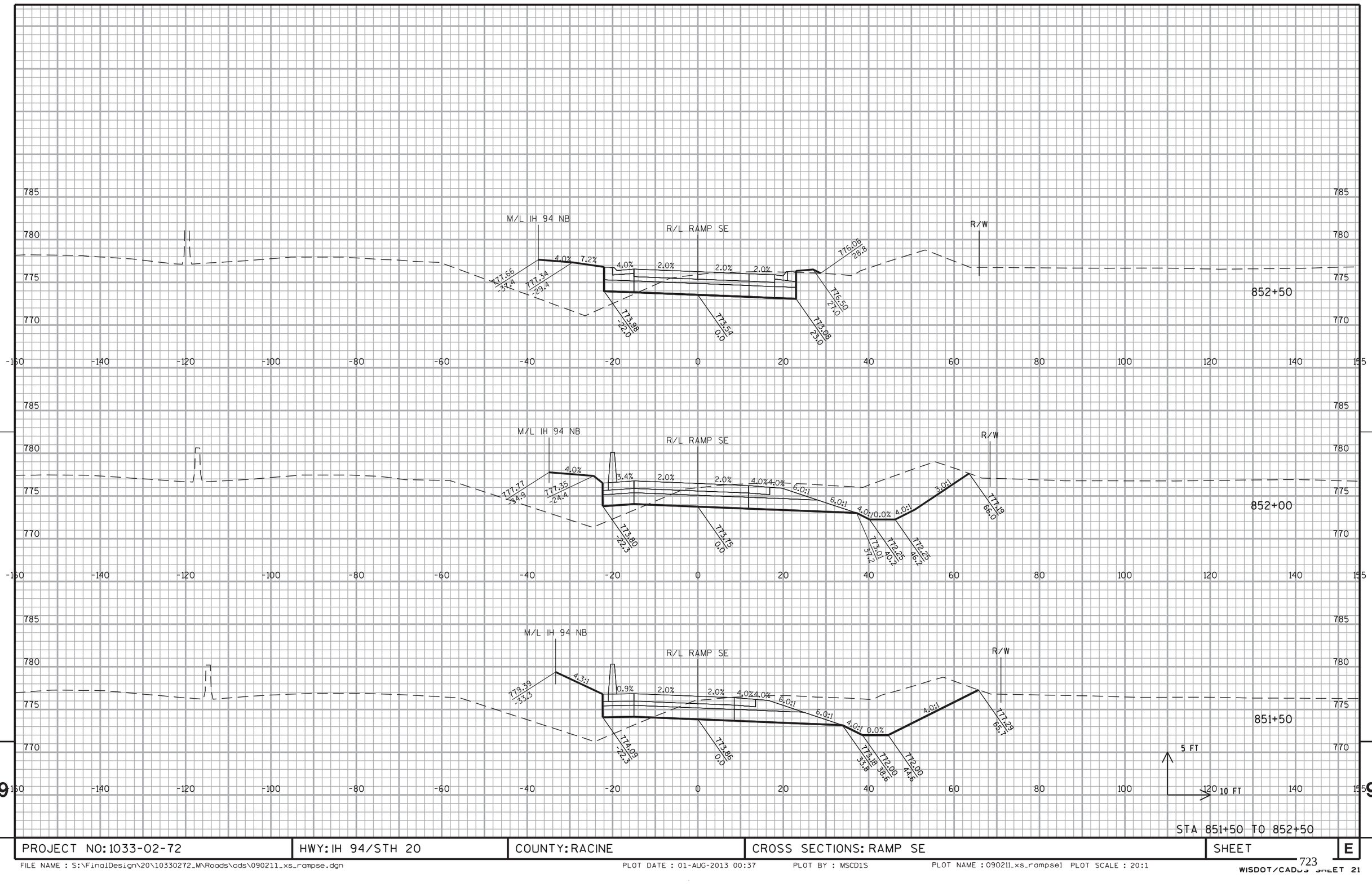
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SE	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090211_xs_rampse.dgn PLOT DATE : 01-AUG-2013 00:37 PLOT BY : MSCD1S PLOT NAME : 090211_xs_rampse PLOT SCALE : 20:1

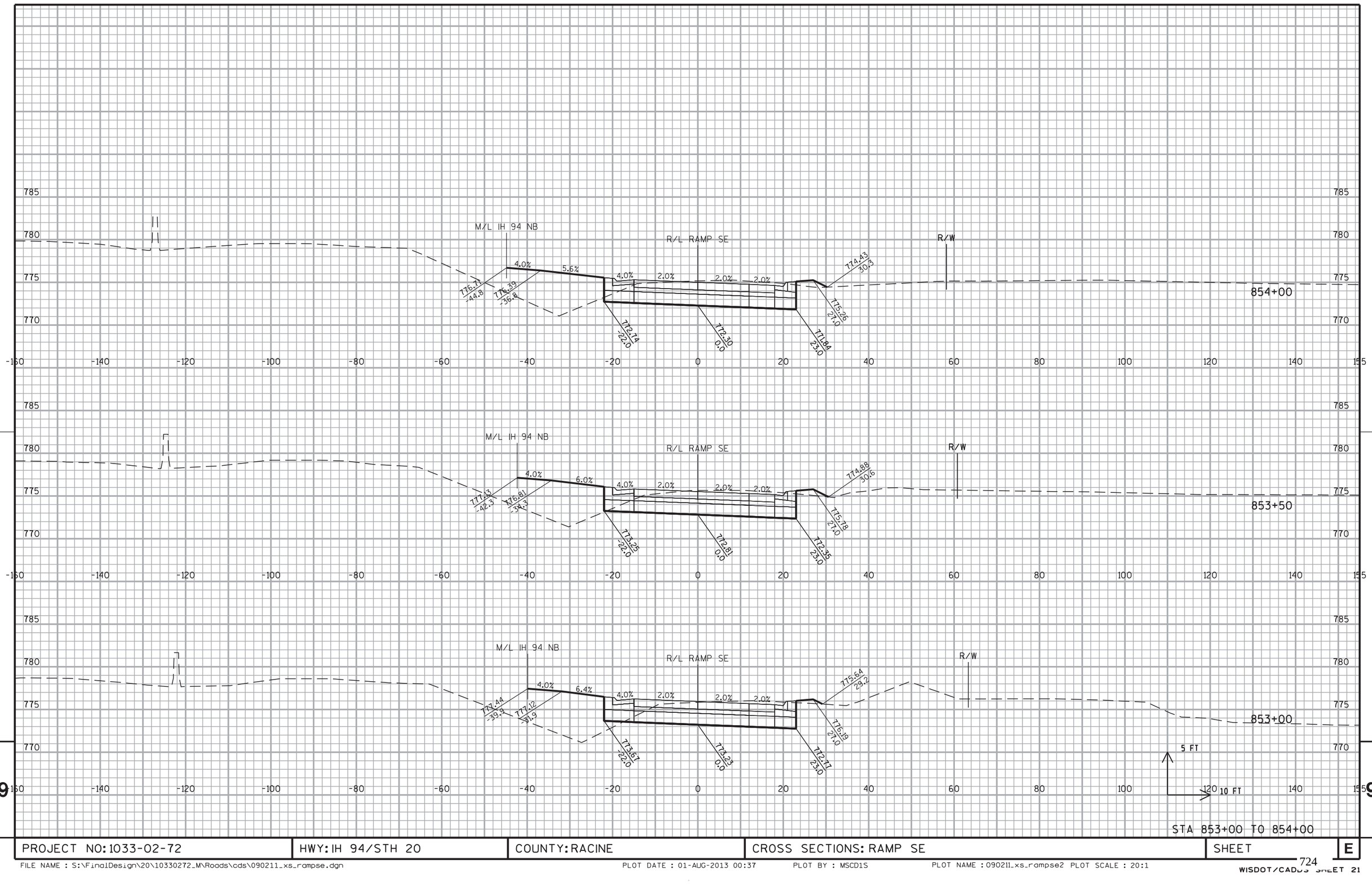
WISDOT/CADDS SHEET 21



STA 851+50 TO 852+50

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SE	SHEET E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090211_xs_rampse.dgn PLOT DATE : 01-AUG-2013 00:37 PLOT BY : MSCD1S PLOT NAME : 090211_xs_rampse1 PLOT SCALE : 20:1

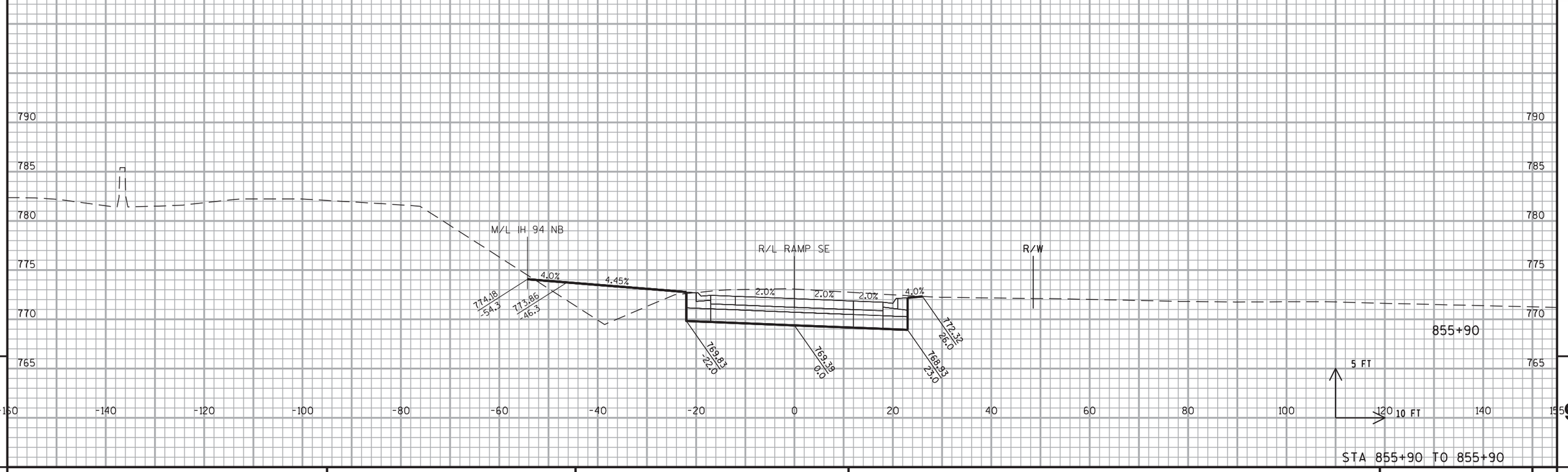


PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SE	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090211_xs_rampse.dgn PLOT DATE : 01-AUG-2013 00:37 PLOT BY : MSCD1S PLOT NAME : 090211_xs_rampse2 PLOT SCALE : 20:1

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SE	SHEET	E

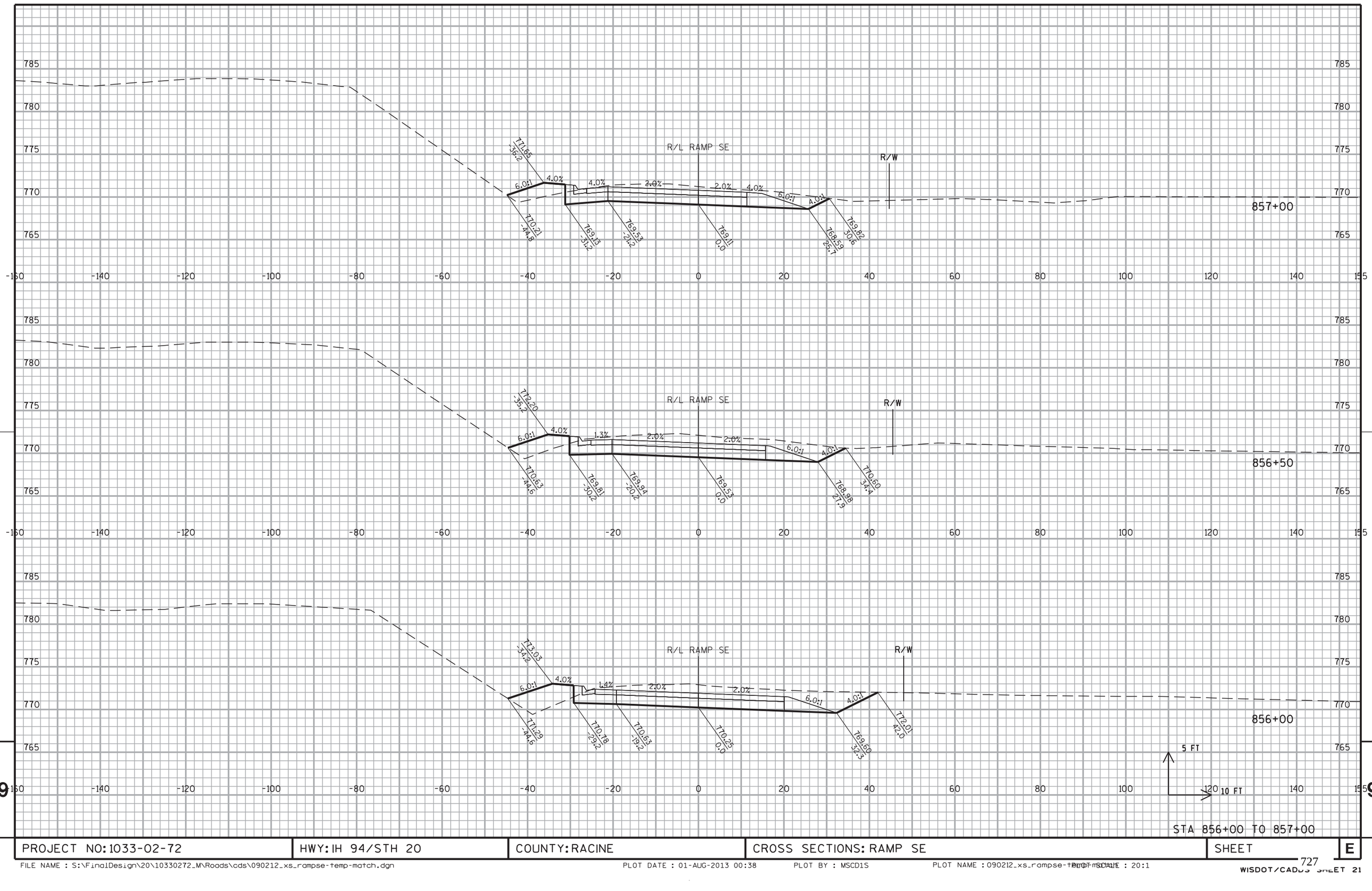
9 9



9

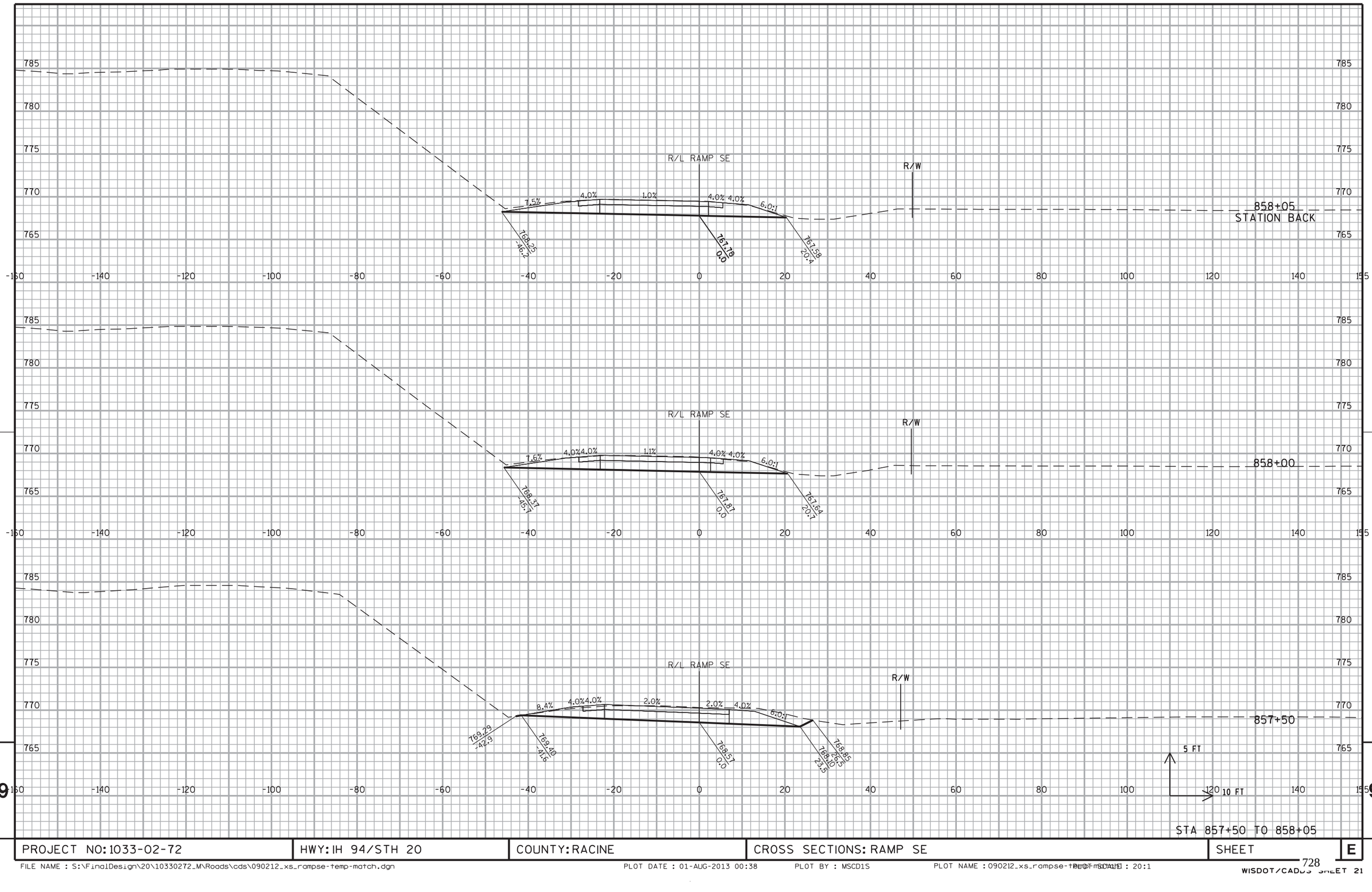
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SE	SHEET	E

STA 855+90 TO 855+90



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SE	SHEET	E

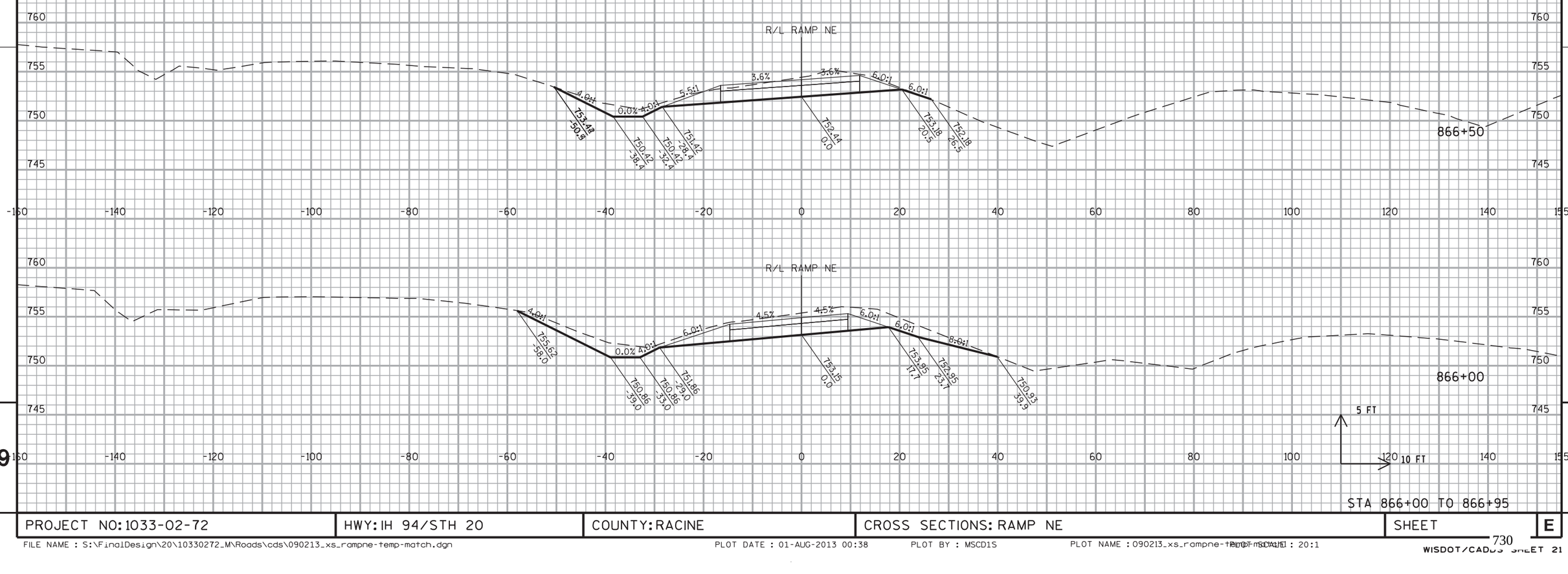
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PLOT DATE : 01-AUG-2013 00:38
PLOT BY : MSCD1S
PLOT NAME : 090212_xs_rampse-temp-match.dgn
PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP SE	SHEET	E

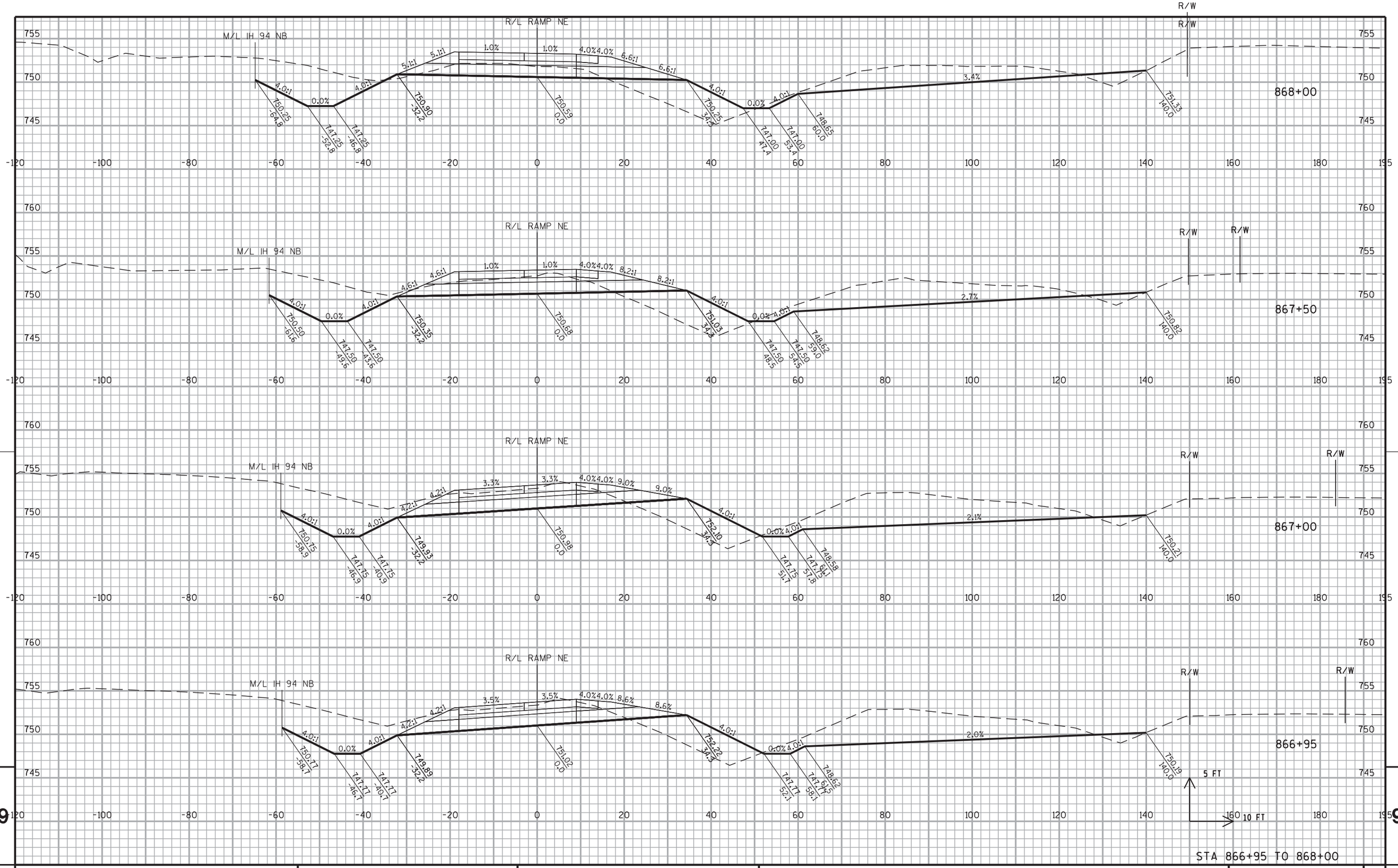
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PLOT BY : MSCD1S
PLOT NAME : 090212_xs_rampse-temp-match.dgn
PLOT SCALE : 20:1

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NE	SHEET	E



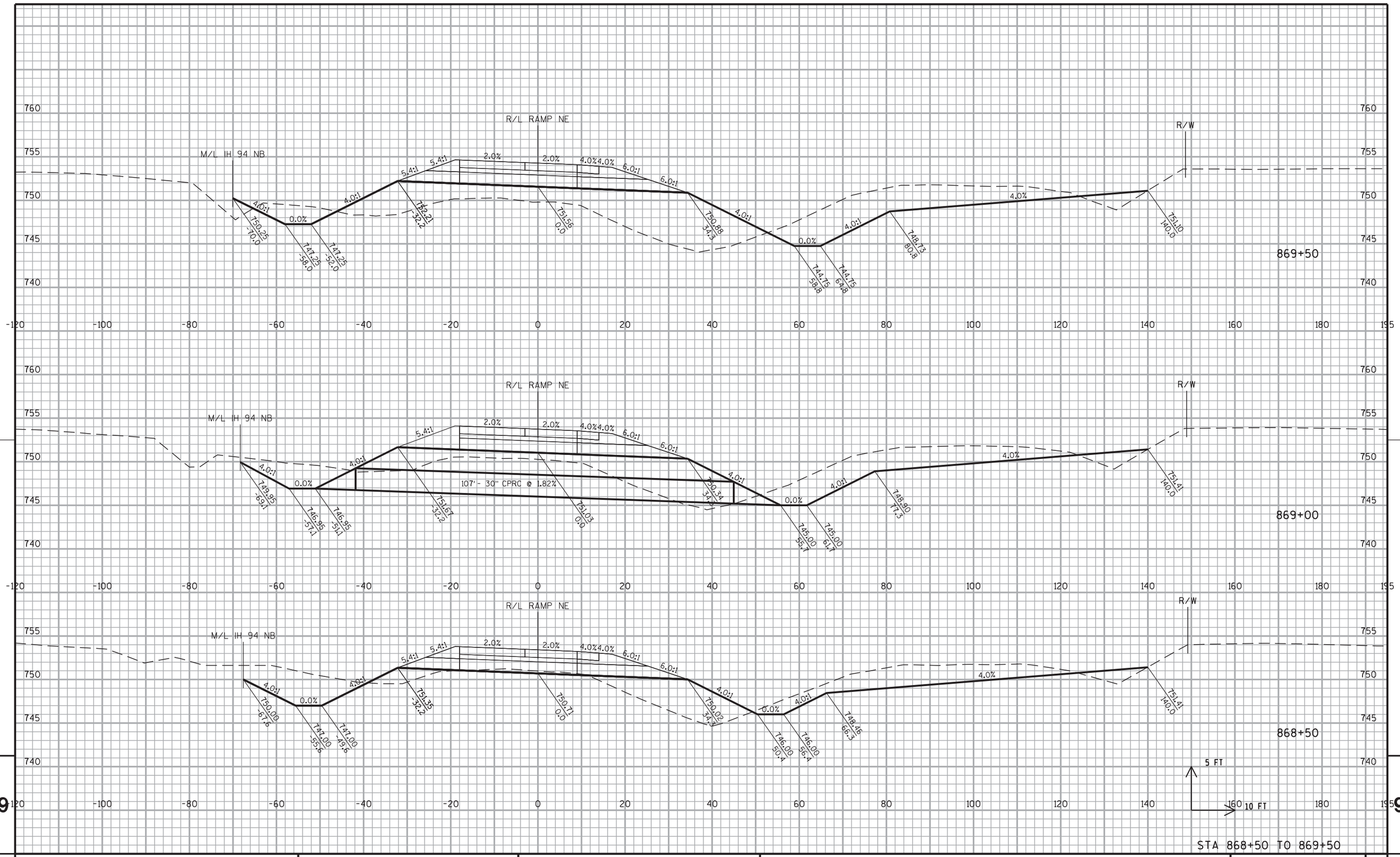
STA 866+00 TO 866+95

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NE	SHEET	E



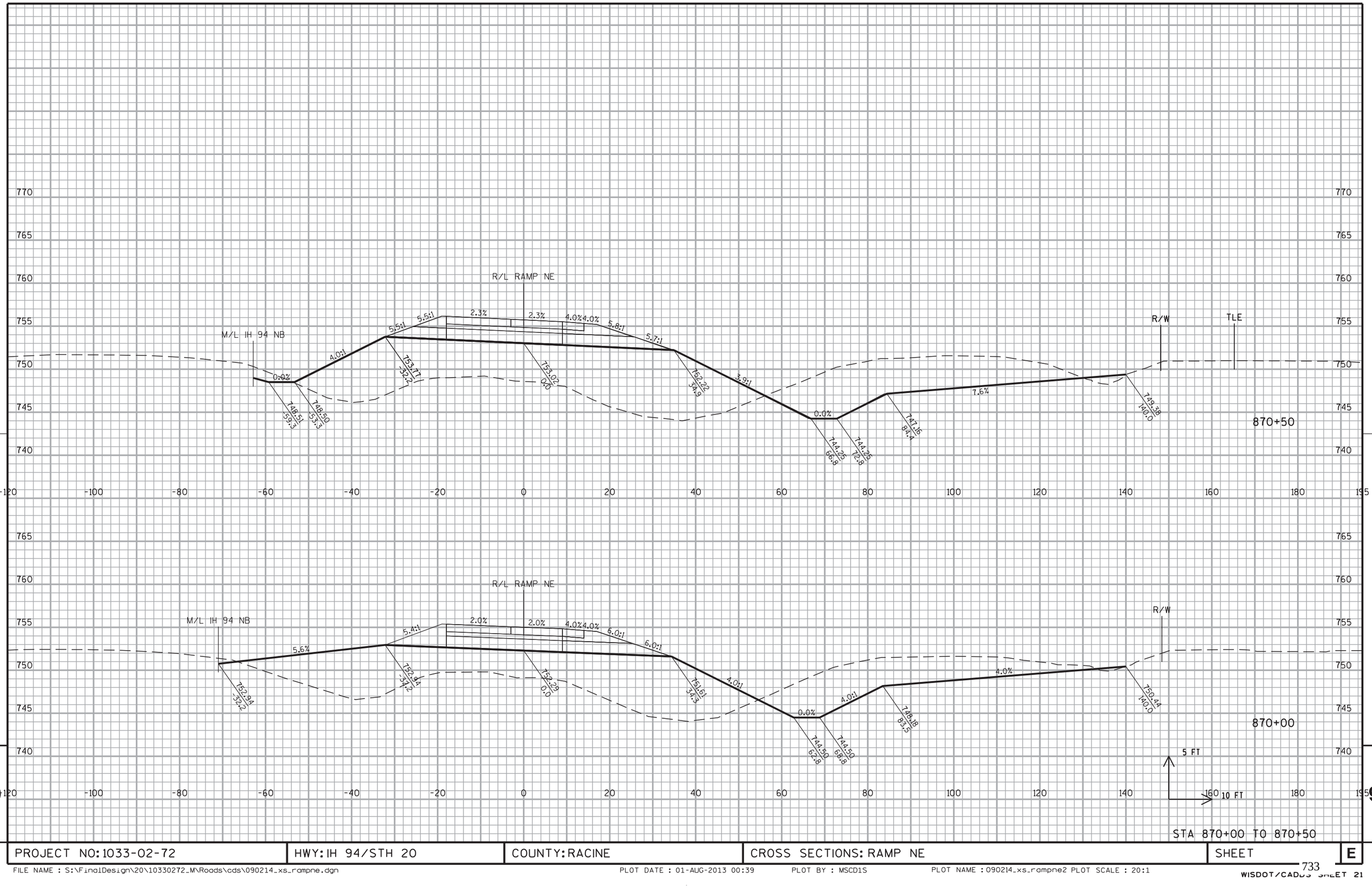
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NE	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090214_xs_rampne.dgn PLOT DATE : 01-AUG-2013 00:38 PLOT BY : MSCD1S PLOT NAME : 090214_xs_rampne PLOT SCALE : 20:1

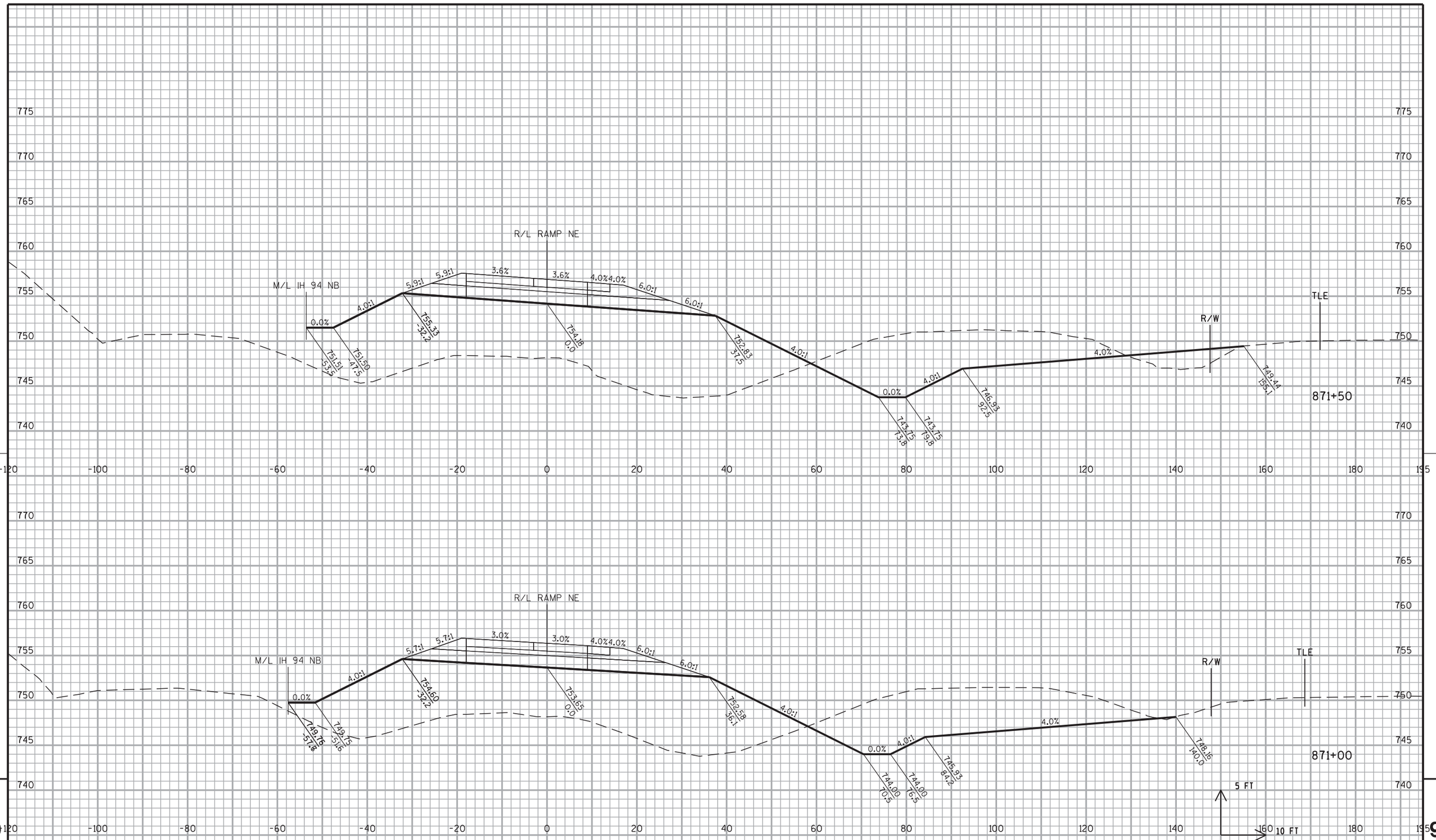


PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NE	SHEET	E

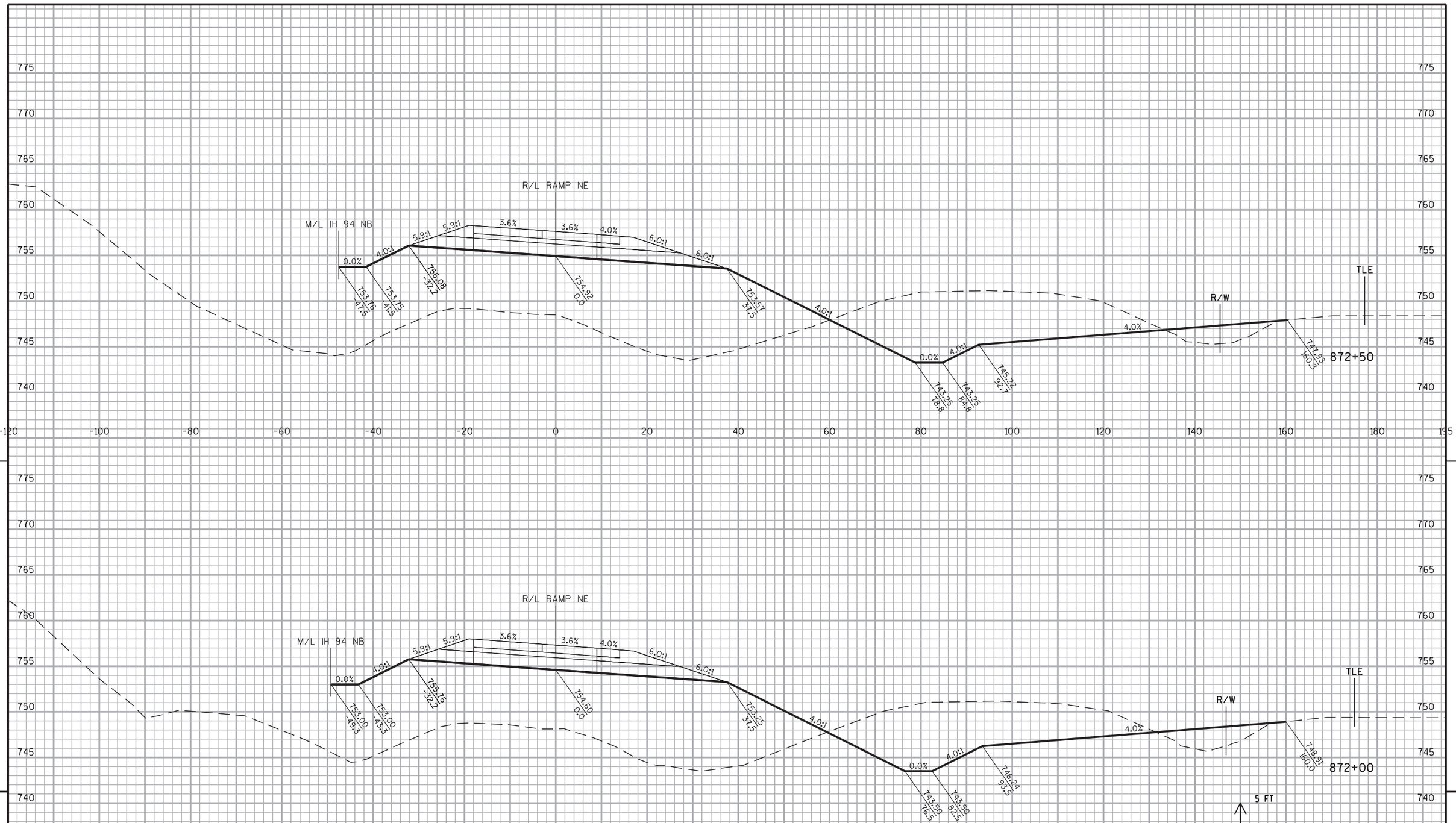
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NE	SHEET	E

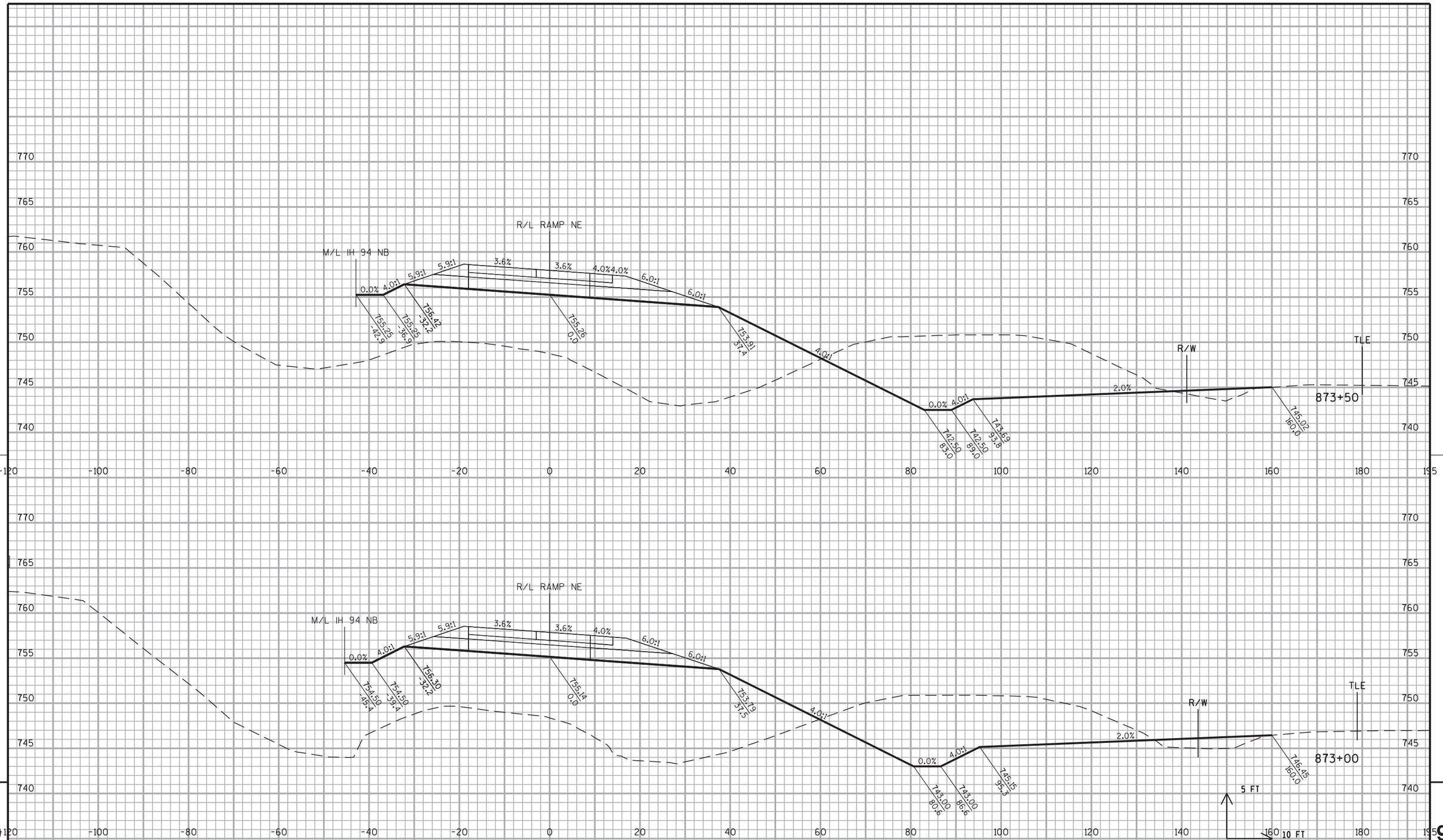


PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NE	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NE	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090214_xs_rampne.dgn PLOT DATE : 01-AUG-2013 00:39 PLOT BY : MSCD1S PLOT NAME : 090214_xs_rampne4 PLOT SCALE : 20:1

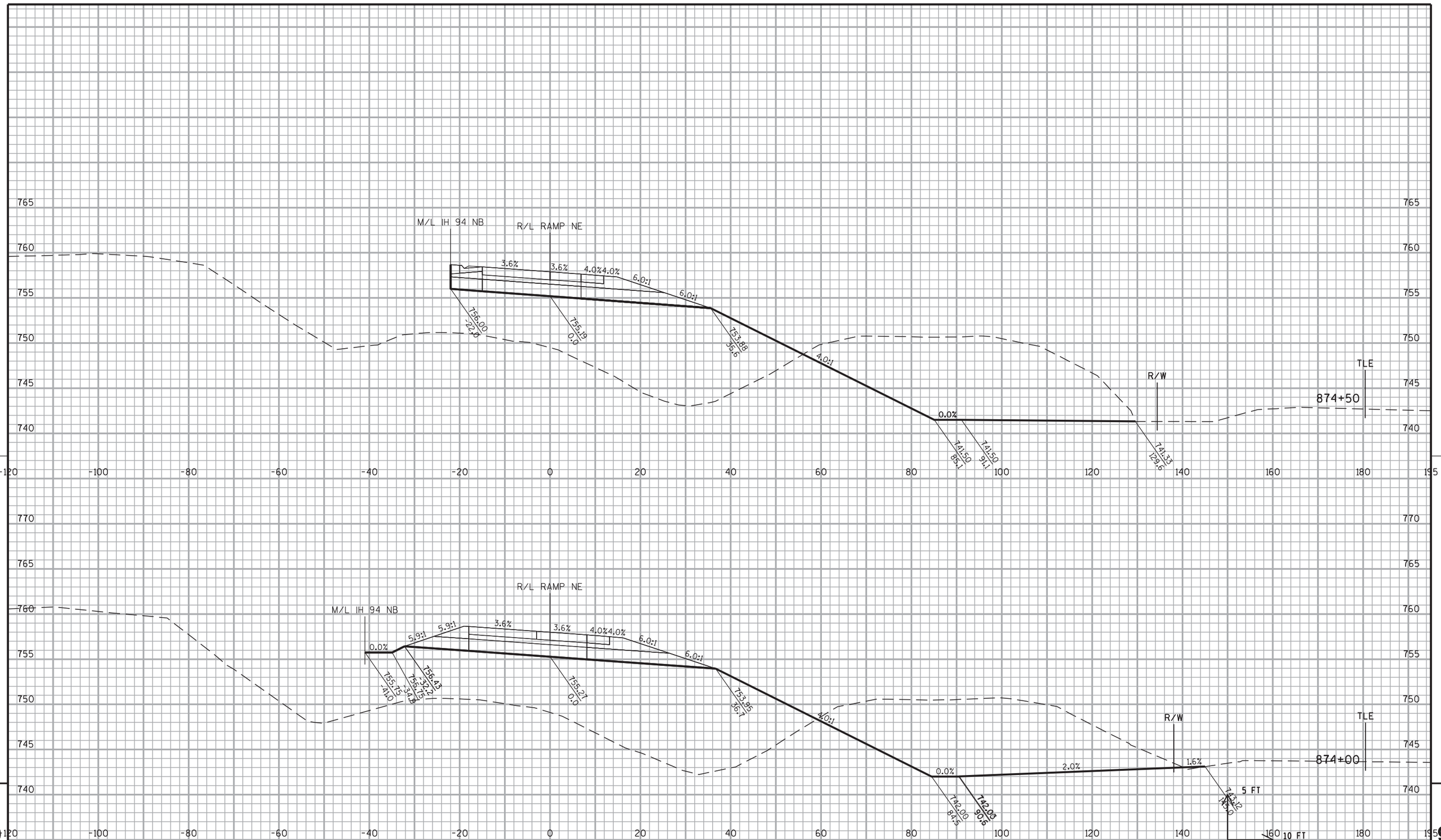


STA 873+00 TO 873+50

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NE	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090214_xs_rampne.dgn PLOT DATE : 01-AUG-2013 00:39 PLOT BY : MSCD1S PLOT NAME : 090214_xs_rampne5 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

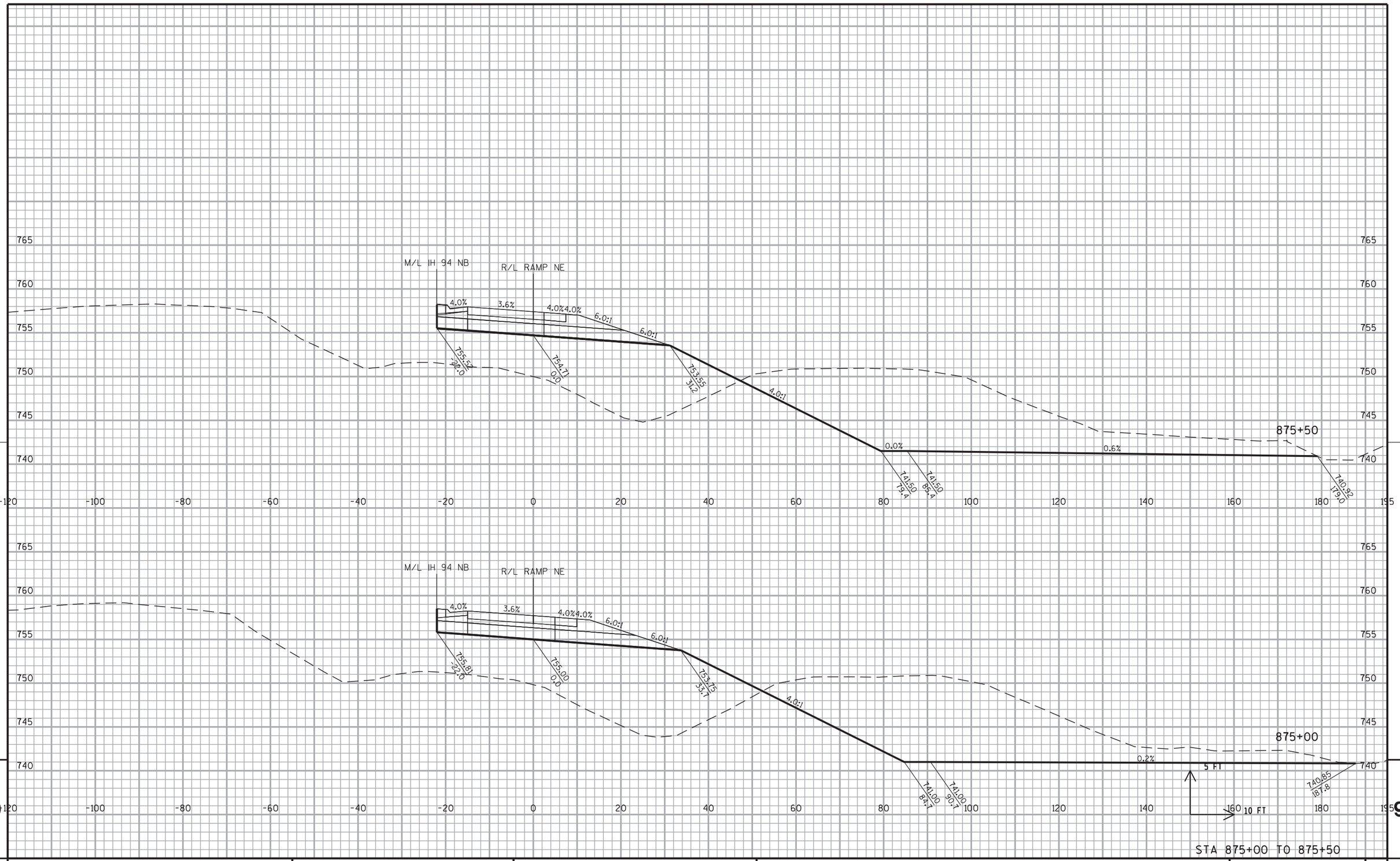


STA 874+00 TO 874+50

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NE	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090214_xs_rampne.dgn PLOT DATE : 01-AUG-2013 00:39 PLOT BY : MSCD1S PLOT NAME : 090214_xs_rampne6 PLOT SCALE : 20:1

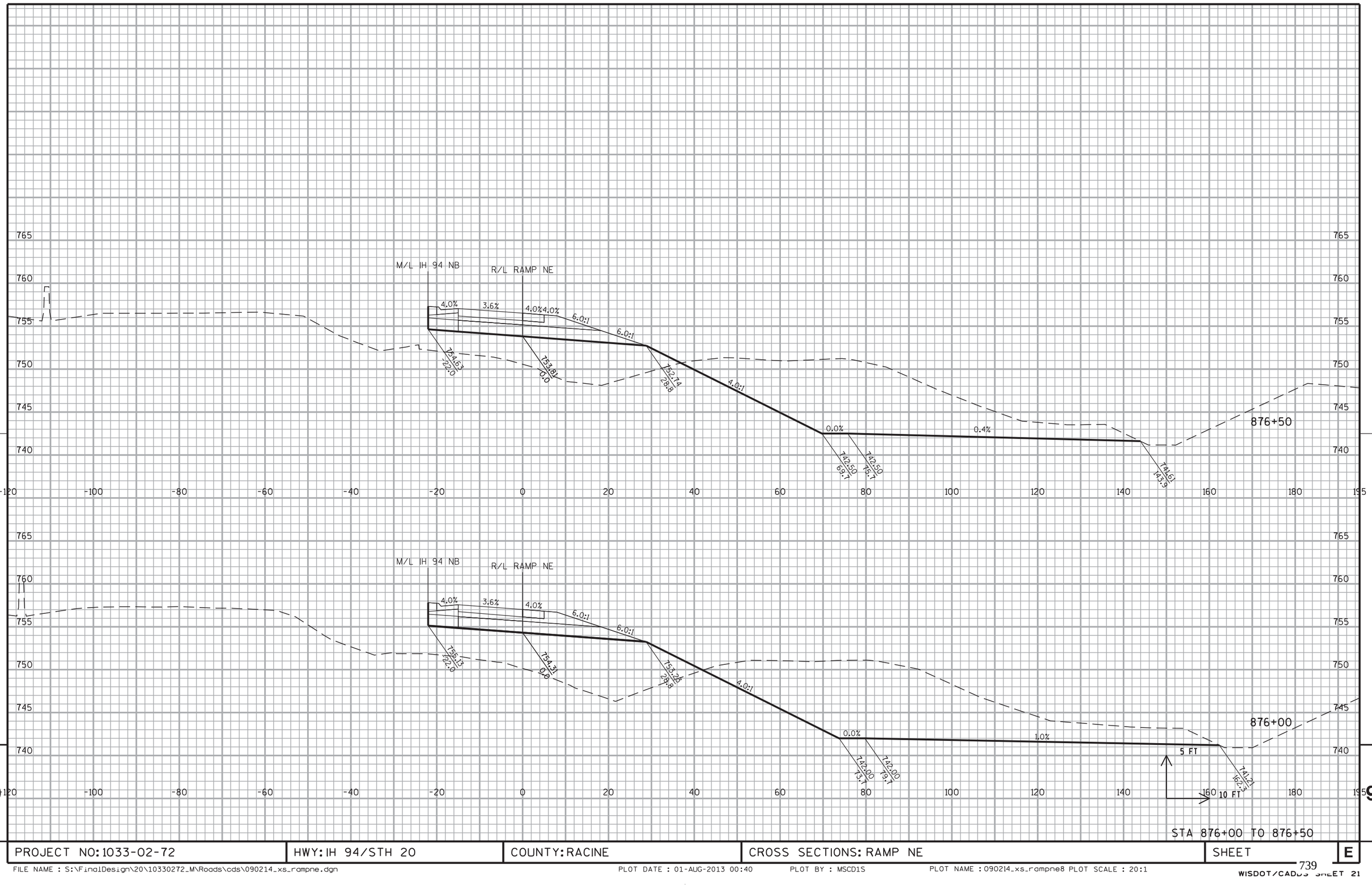
WISDOT/CADDS SHEET 21



STA 875+00 TO 875+50

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NE	SHEET	E

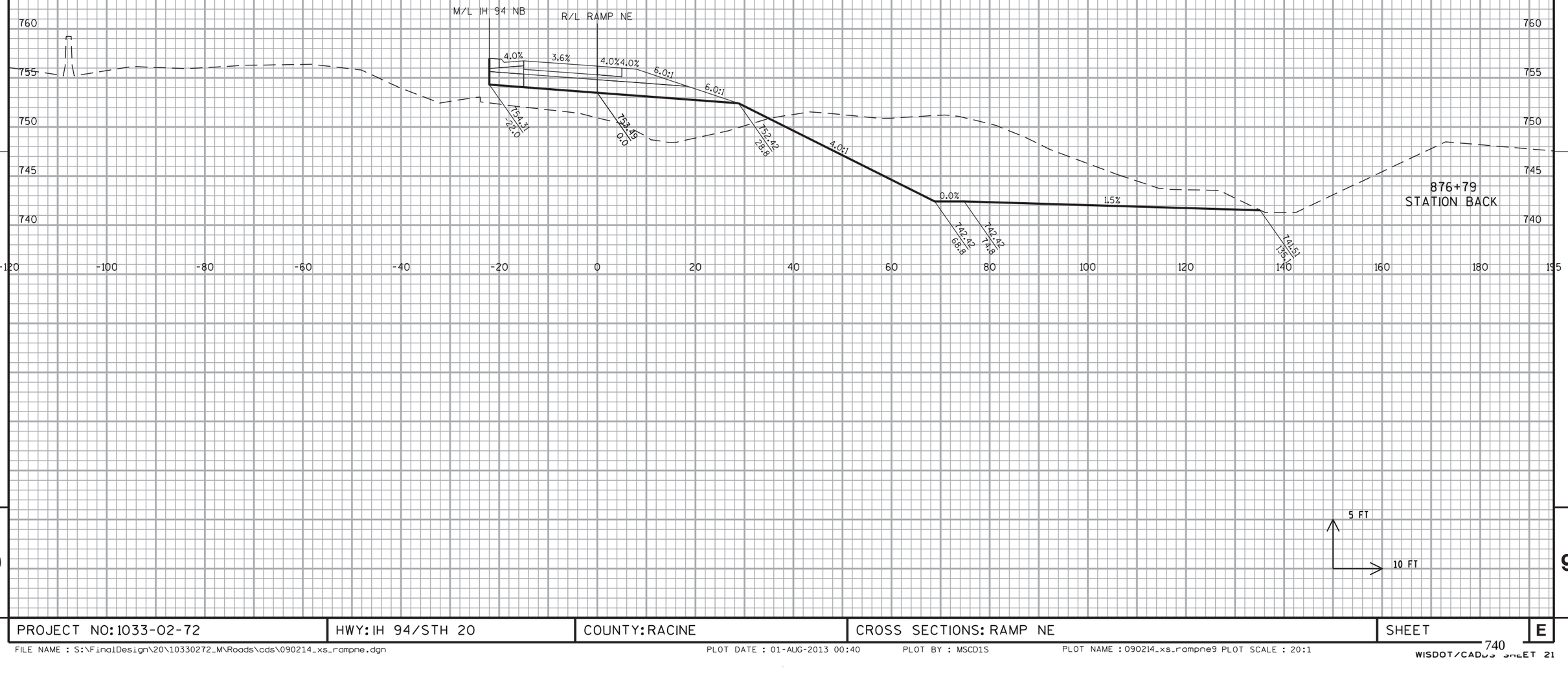
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PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NE	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090214_xs_rampne.dgn PLOT DATE : 01-AUG-2013 00:40 PLOT BY : MSCD1S PLOT NAME : 090214_xs_rampne8 PLOT SCALE : 20:1

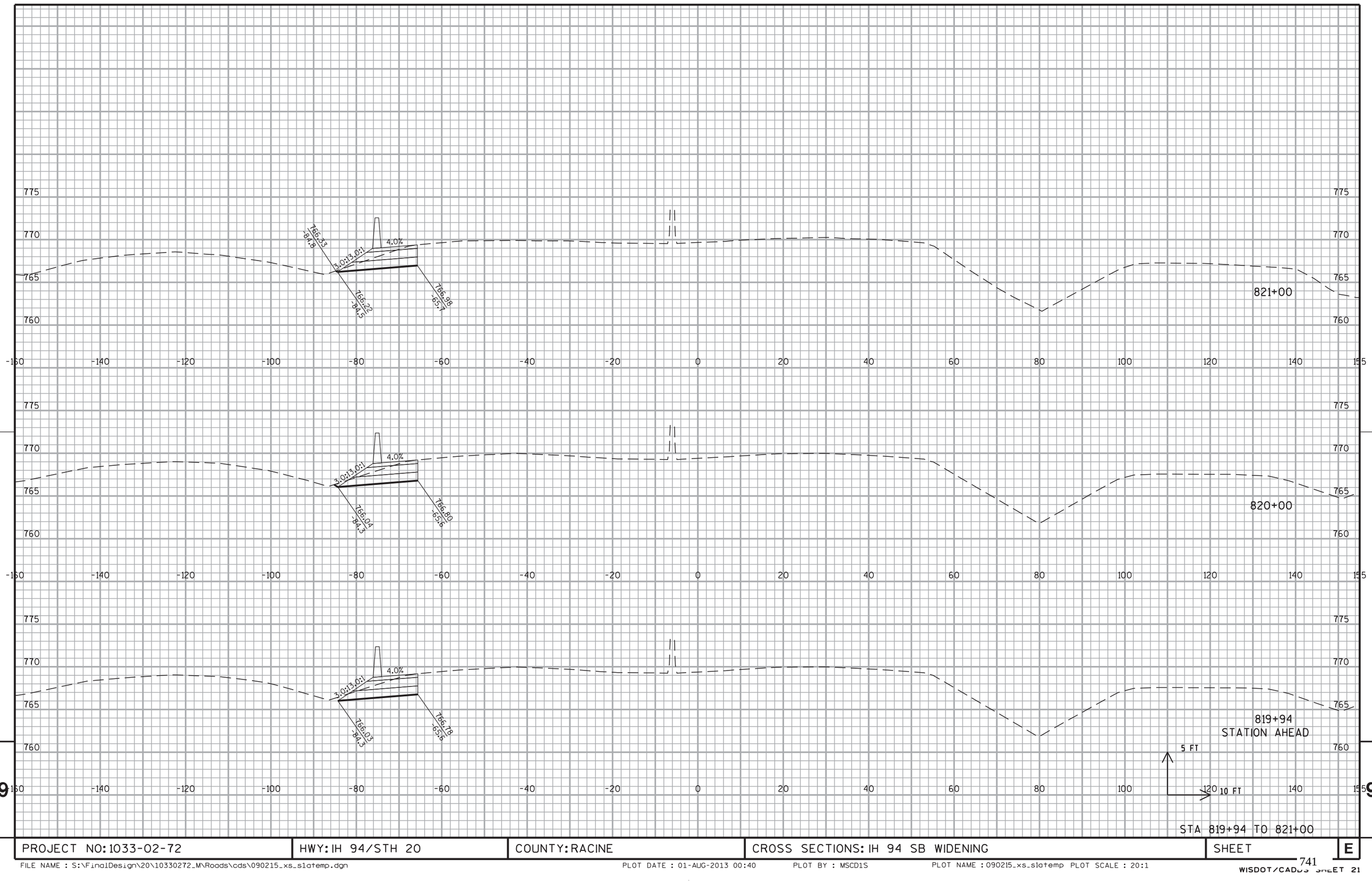
WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: RAMP NE	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090214_xs_rampne.dgn PLOT DATE : 01-AUG-2013 00:40 PLOT BY : MSCD1S PLOT NAME : 090214_xs_rampne9 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 819+94 TO 821+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

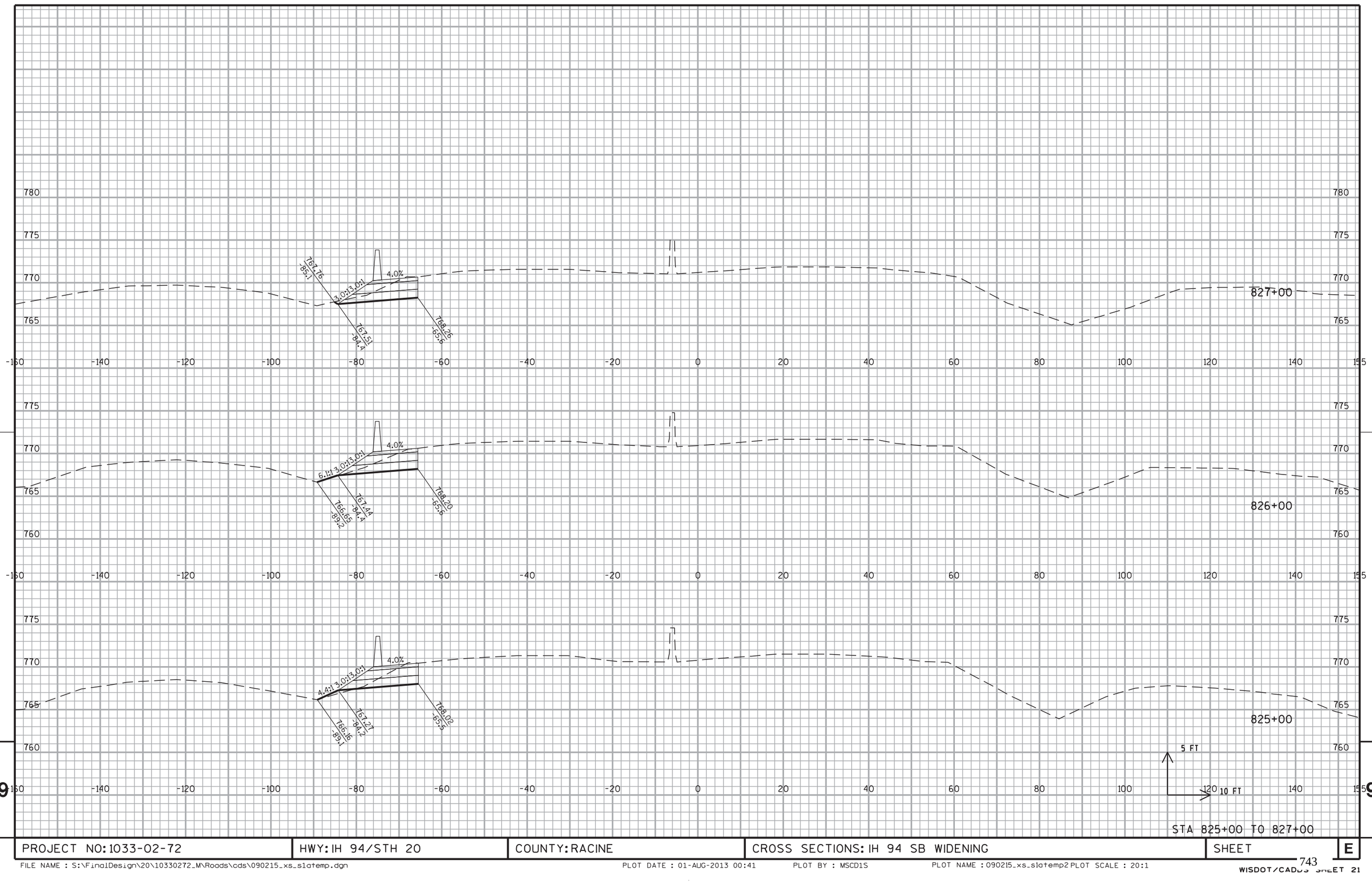
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STA 822+00 TO 824+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_slatemp.dgn PLOT DATE : 01-AUG-2013 00:40 PLOT BY : MSCD1S PLOT NAME : 090215_xs_slatemp1 PLOT SCALE : 20:1

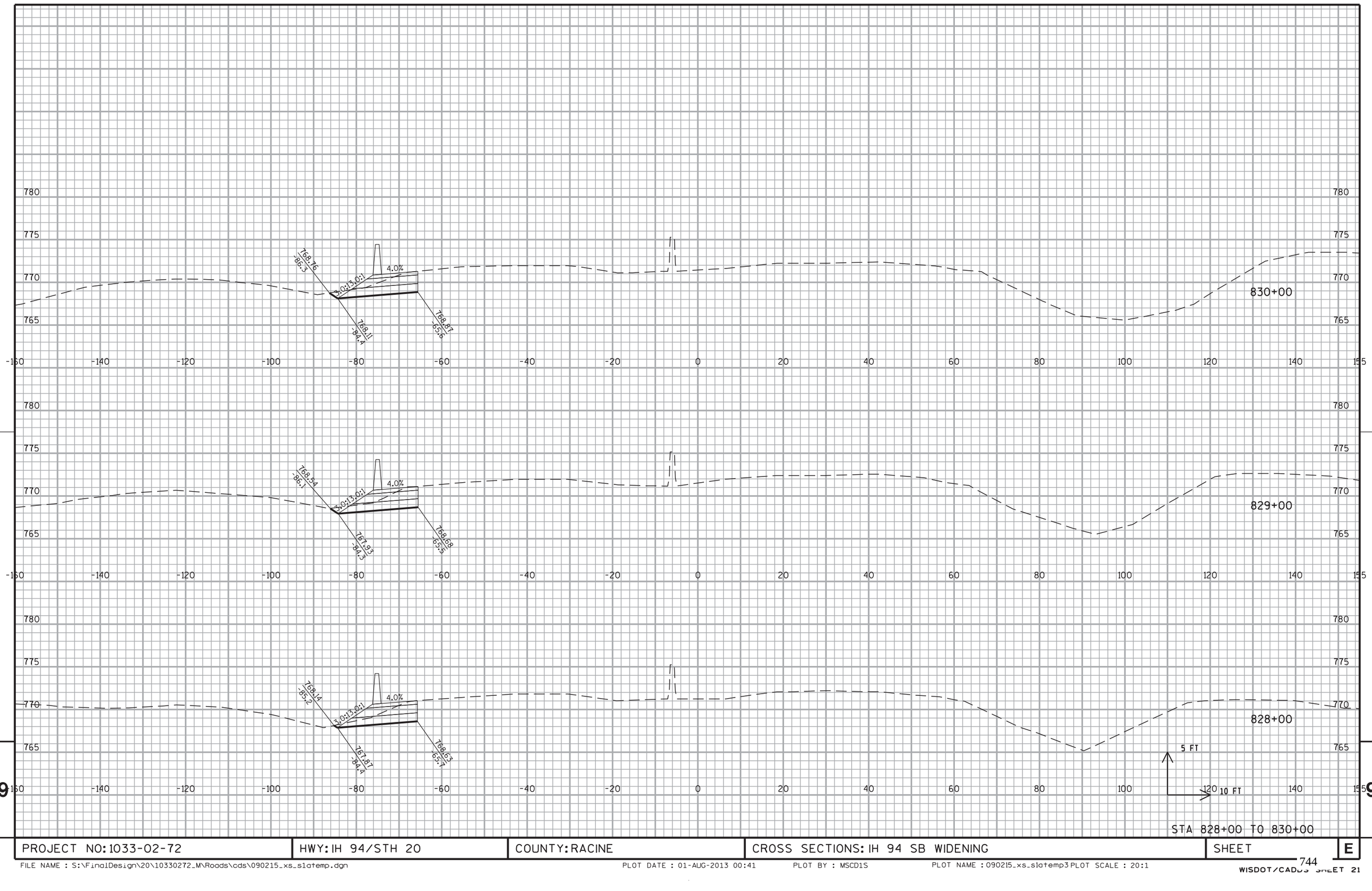
WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_slatemp.dgn PLOT DATE : 01-AUG-2013 00:41 PLOT BY : MSCD1S PLOT NAME : 090215_xs_slatemp2 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 828+00 TO 830+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

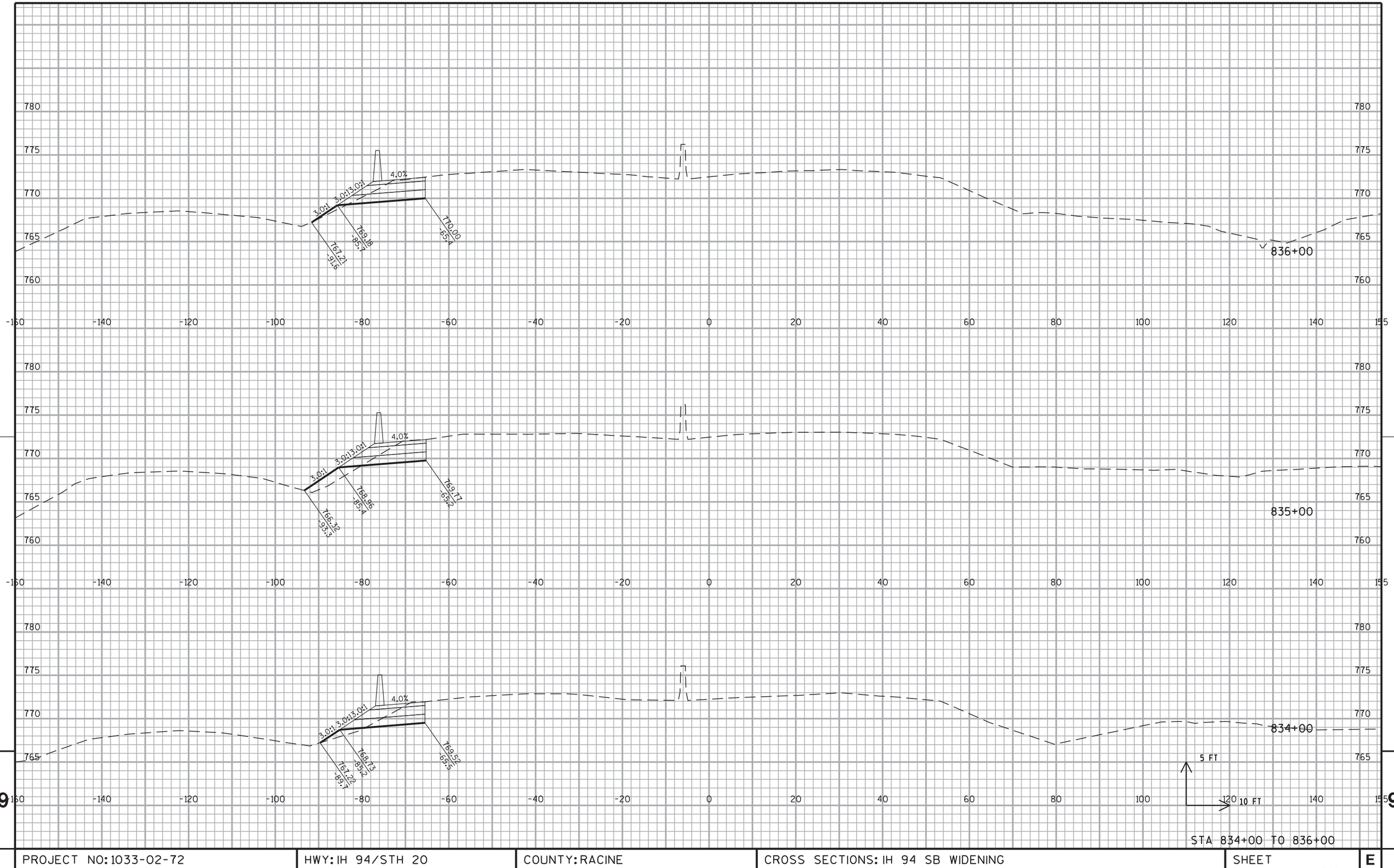
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WISDOT/CADDS SHEET 21

STA 831+00 TO 833+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_slatemp.dgn PLOT DATE : 01-AUG-2013 00:41 PLOT BY : MSCD1S PLOT NAME : 090215_xs_slatemp4 PLOT SCALE : 20:1

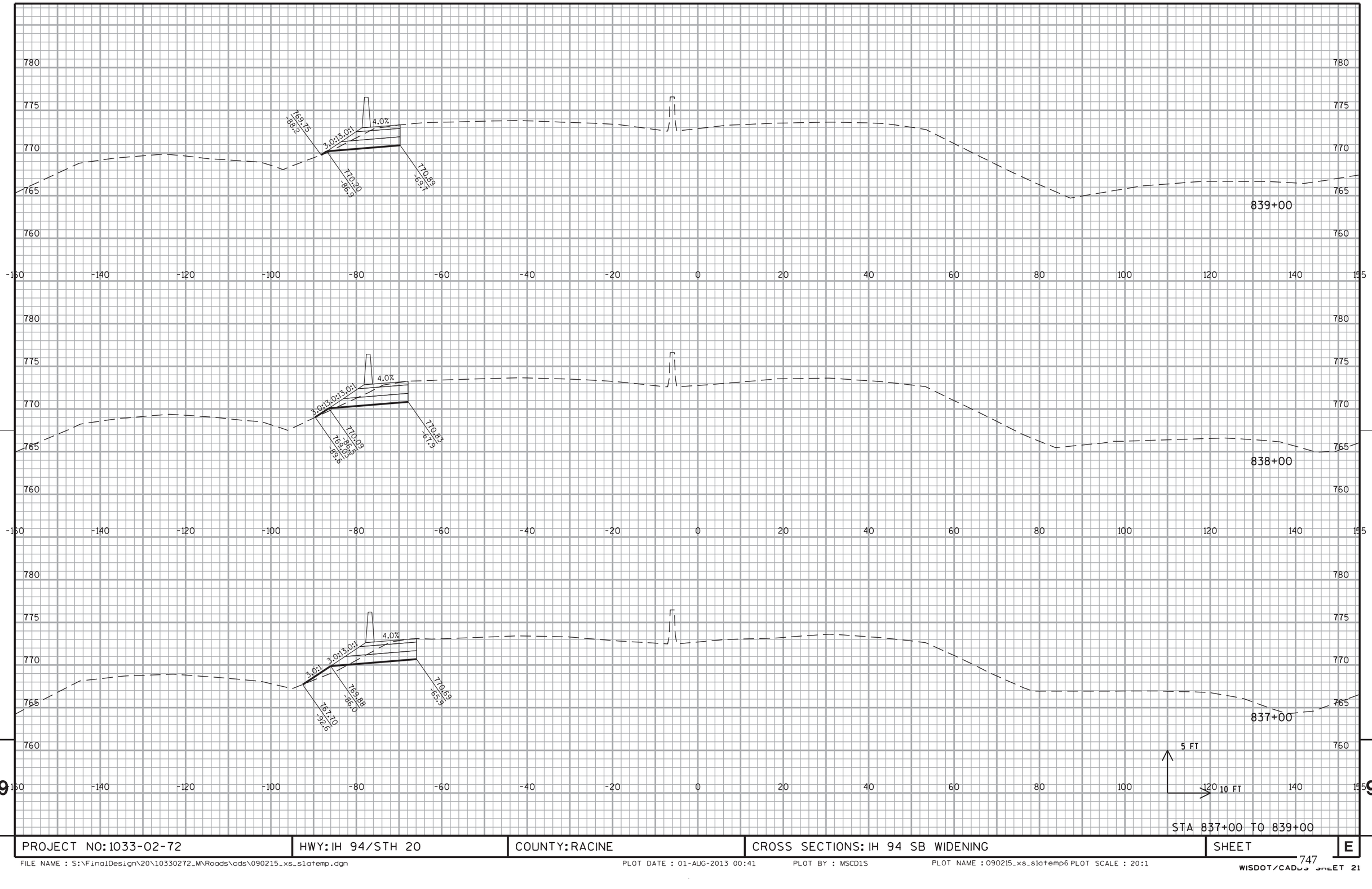


STA 834+00 TO 836+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

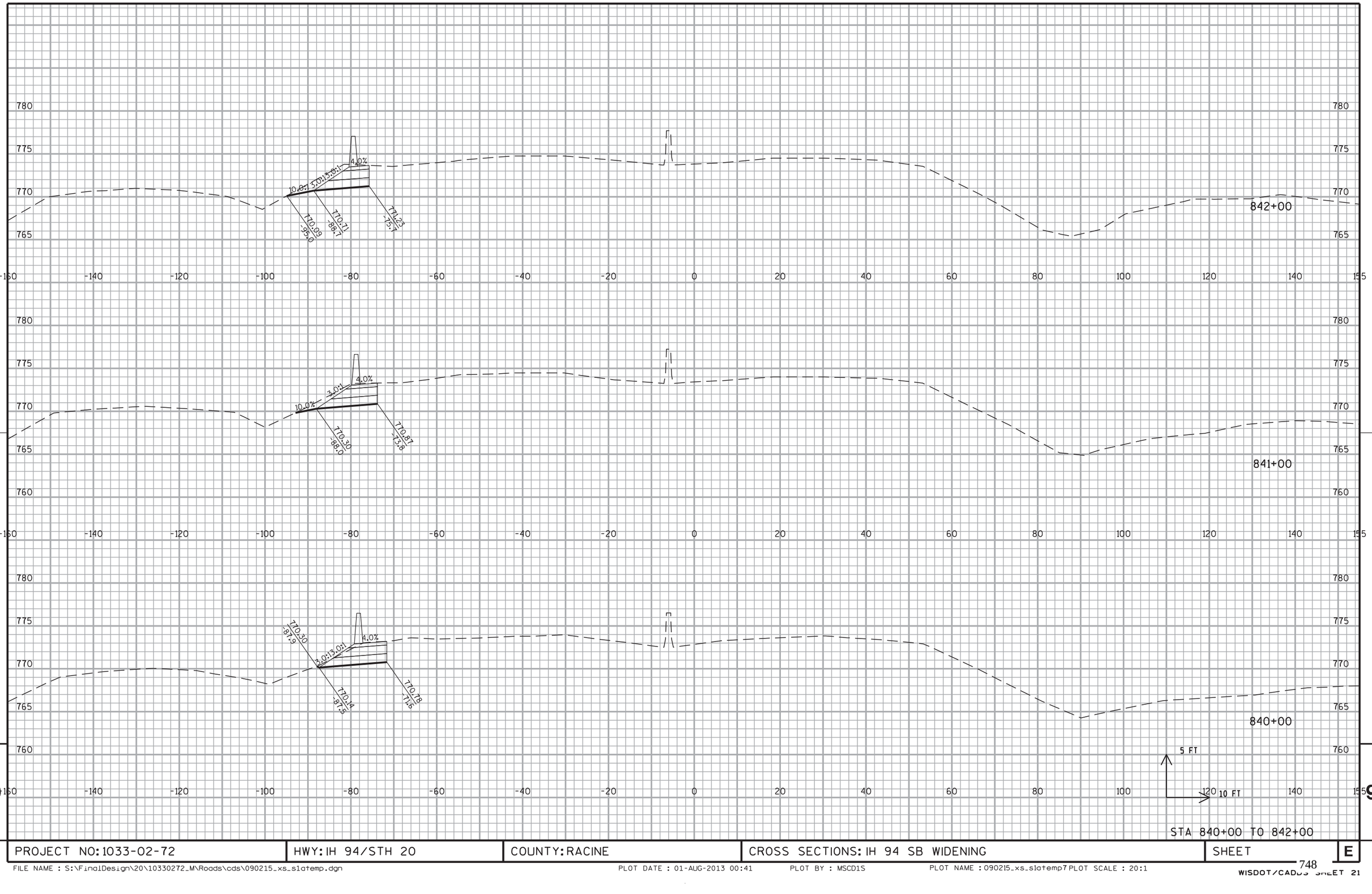
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FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_slatemp.dgn PLOT DATE : 01-AUG-2013 00:41 PLOT BY : MSCD1S PLOT NAME : 090215_xs_slatemp5 PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21



STA 837+00 TO 839+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

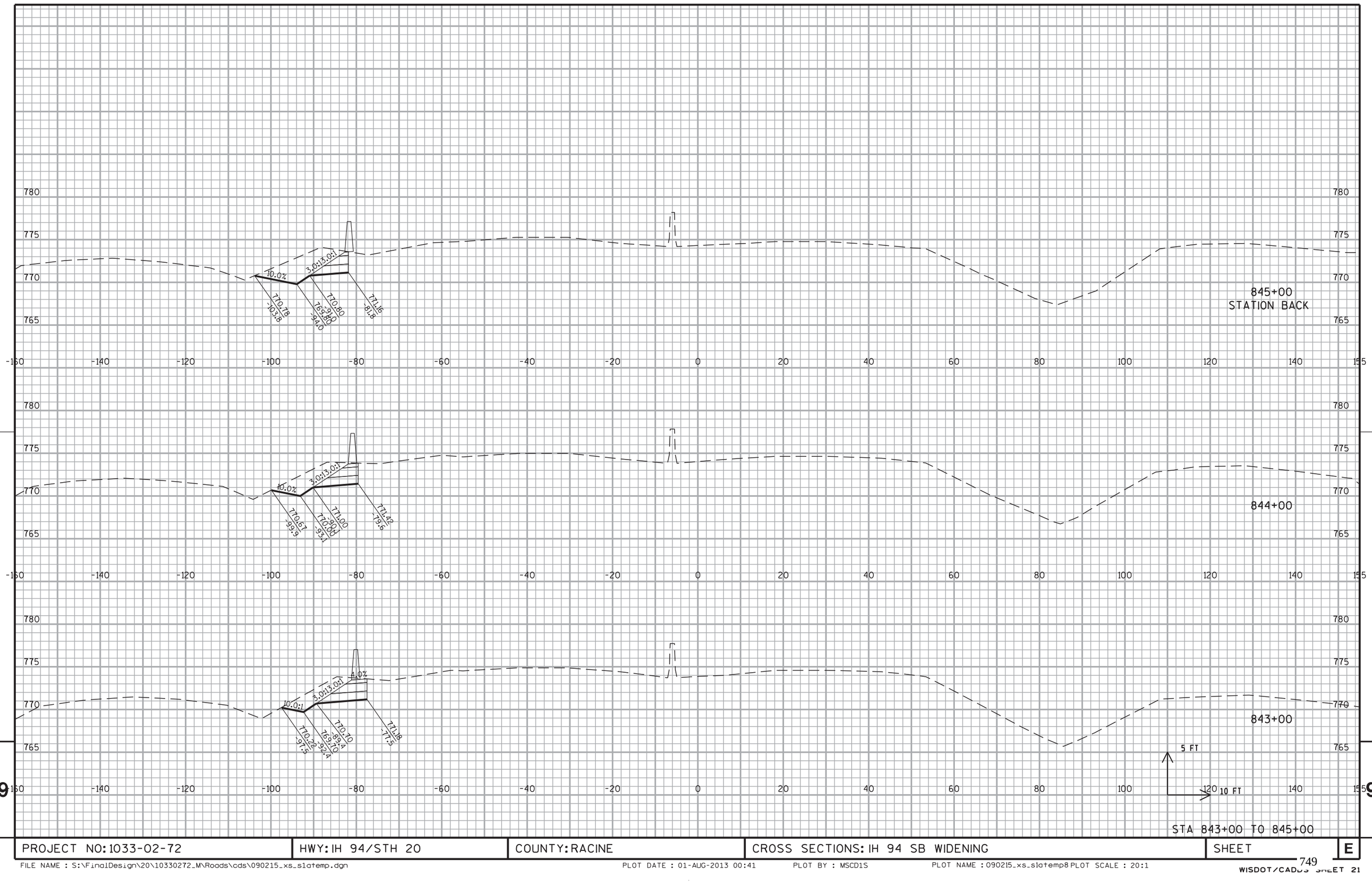


9

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

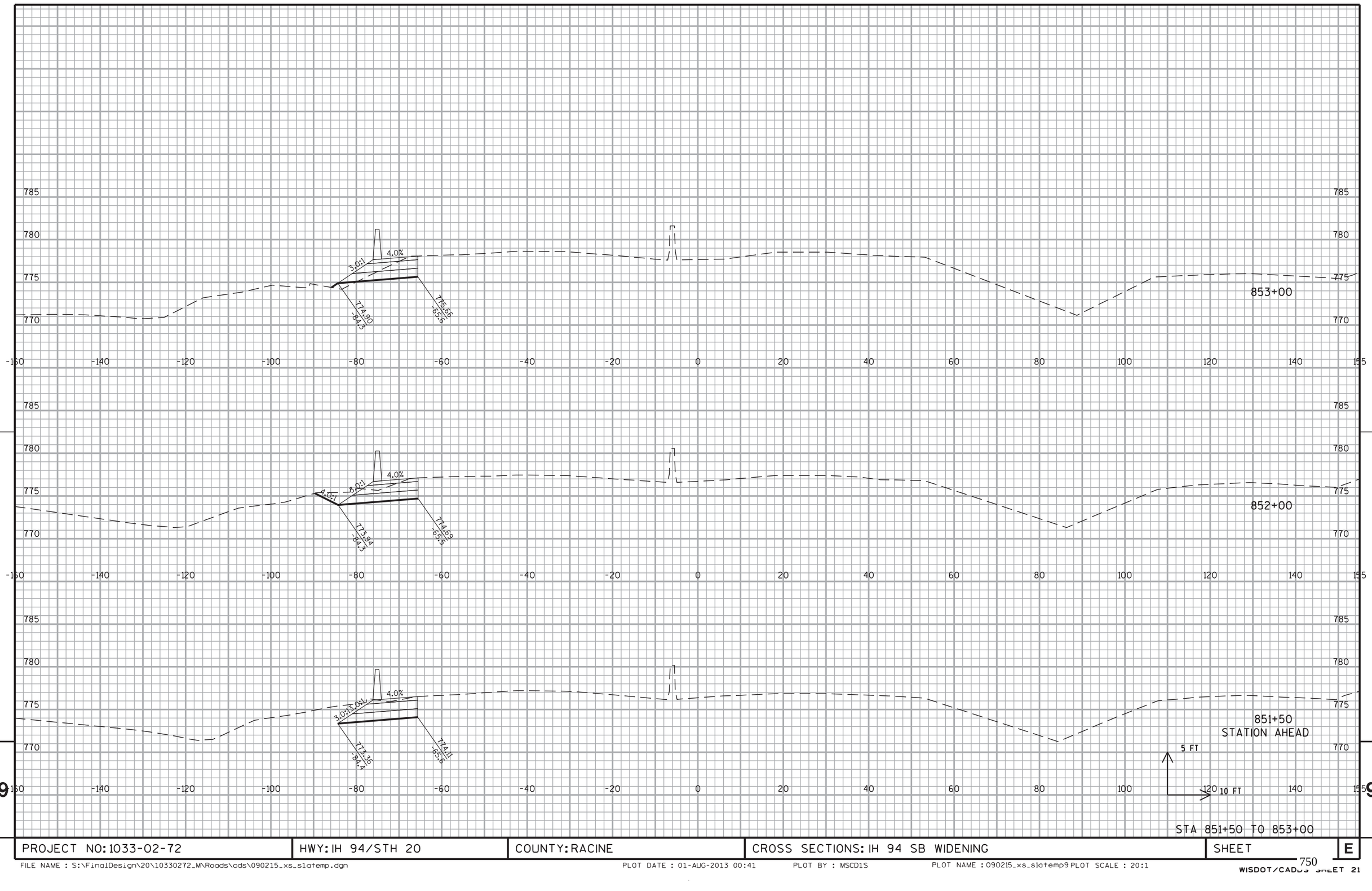
STA 840+00 TO 842+00

9



9

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

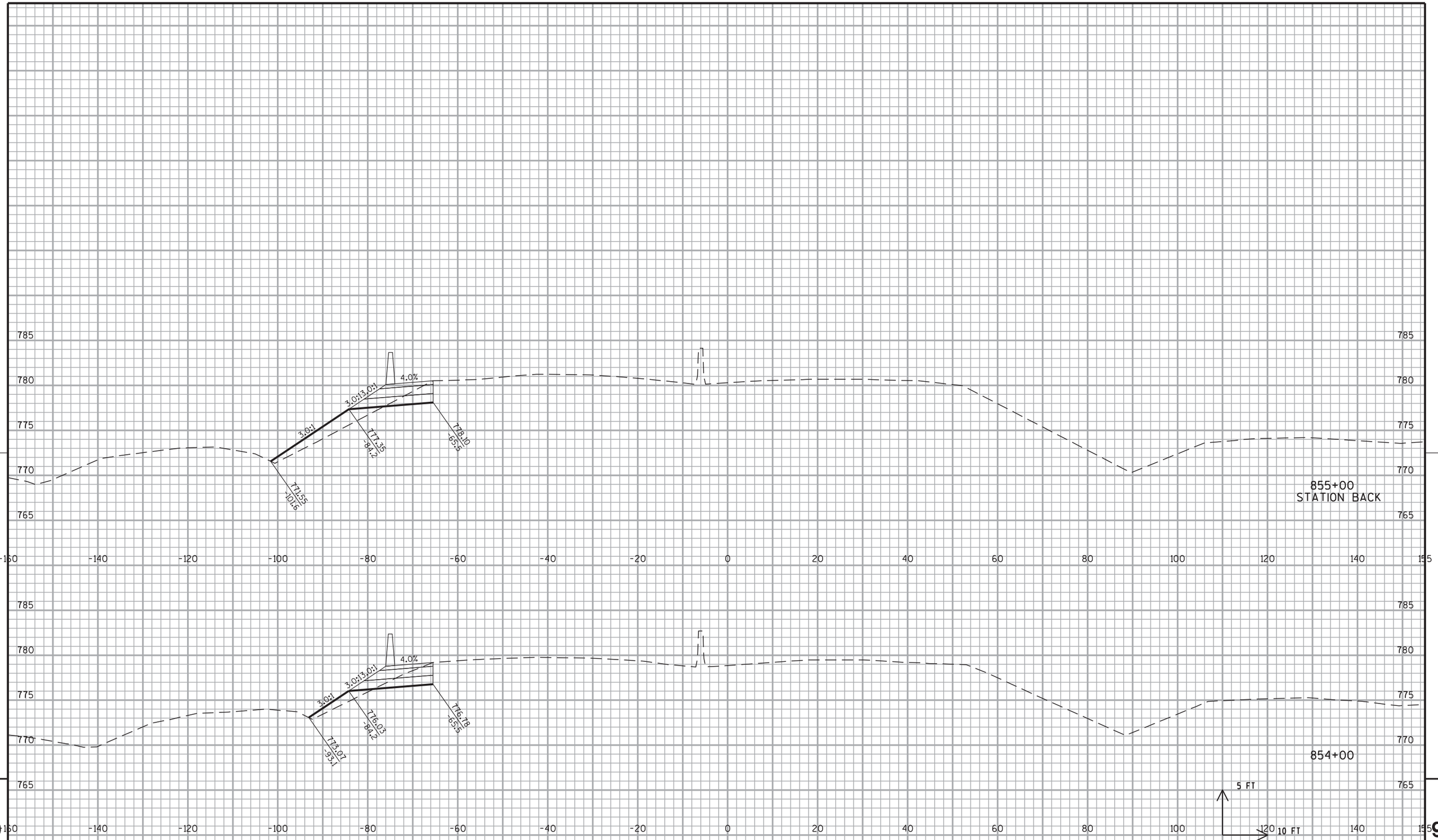


STA 851+50 TO 853+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

9 9

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_slatemp.dgn PLOT DATE : 01-AUG-2013 00:41 PLOT BY : MSCD1S PLOT NAME : 090215_xs_slatemp9 PLOT SCALE : 20:1
WISDOT/CADDS SHEET 21

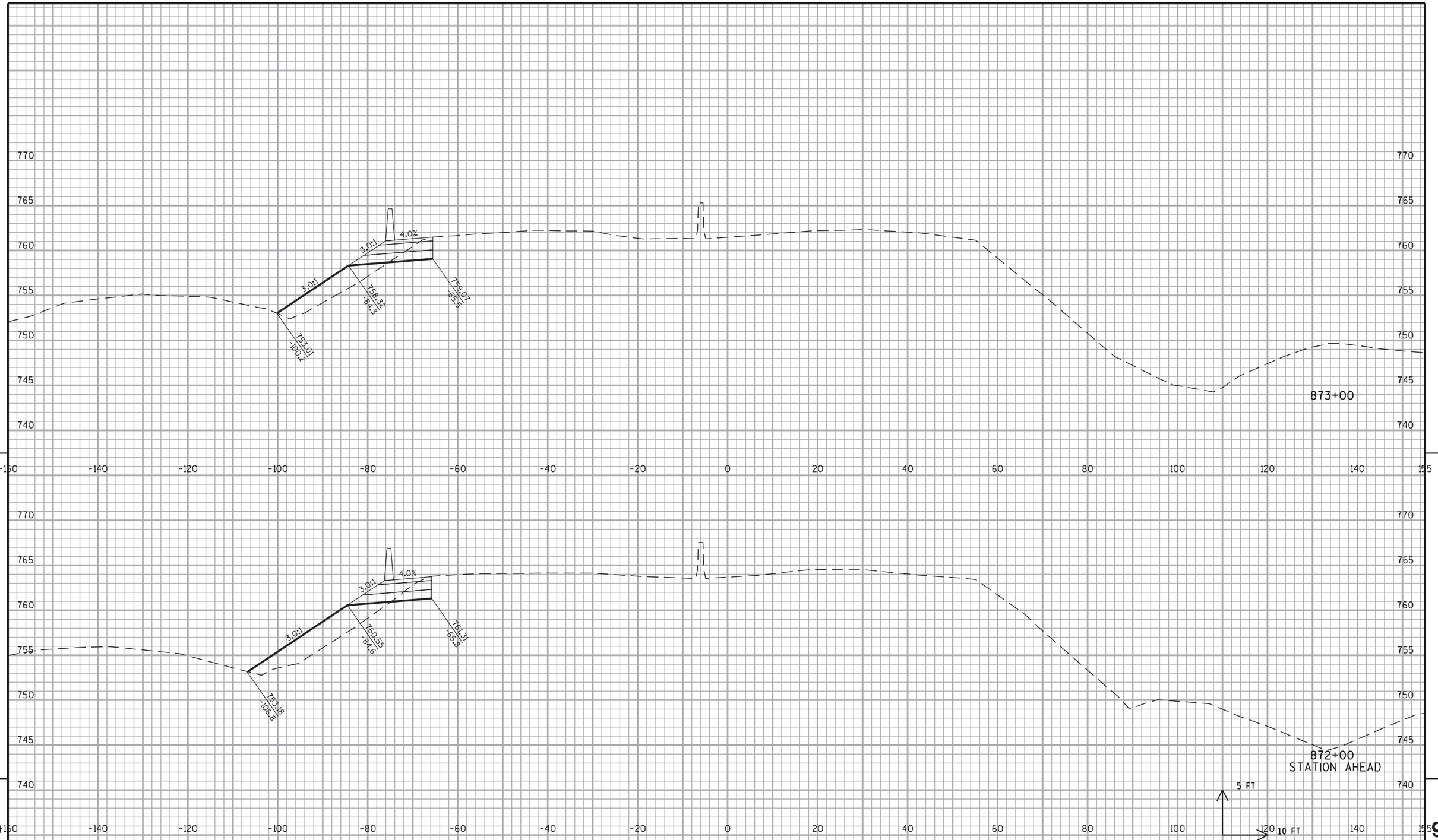


STA 854+00 TO 855+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_slatemp.dgn PLOT DATE : 01-AUG-2013 00:41 PLOT BY : MSCD1S PLOT NAME : 090215_xs_slatemp10 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

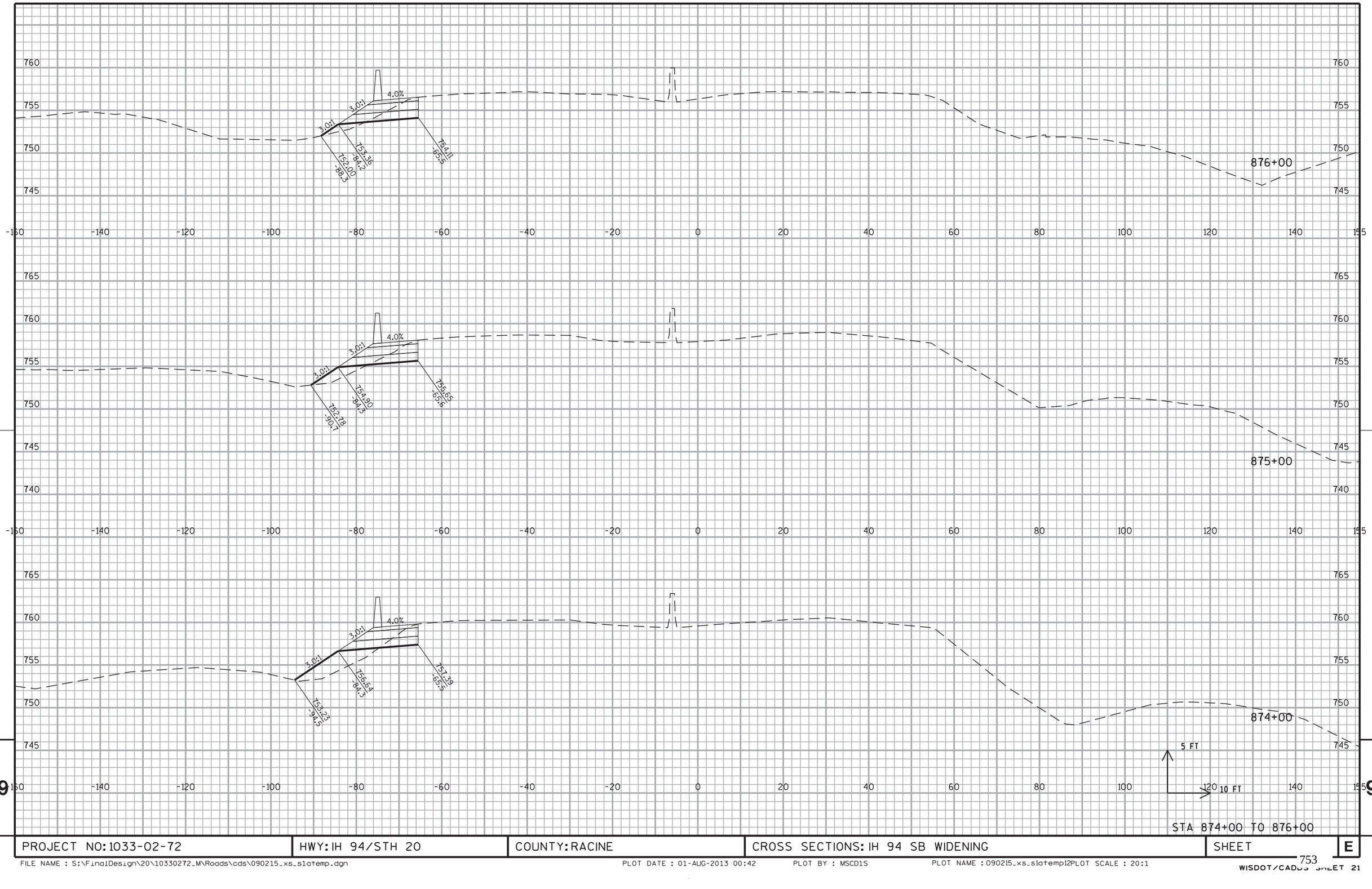
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

STA 872+00 TO 873+00

9

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_slatemp.dgn PLOT DATE : 01-AUG-2013 00:42 PLOT BY : MSCD1S PLOT NAME : 090215_xs_slatemp11PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

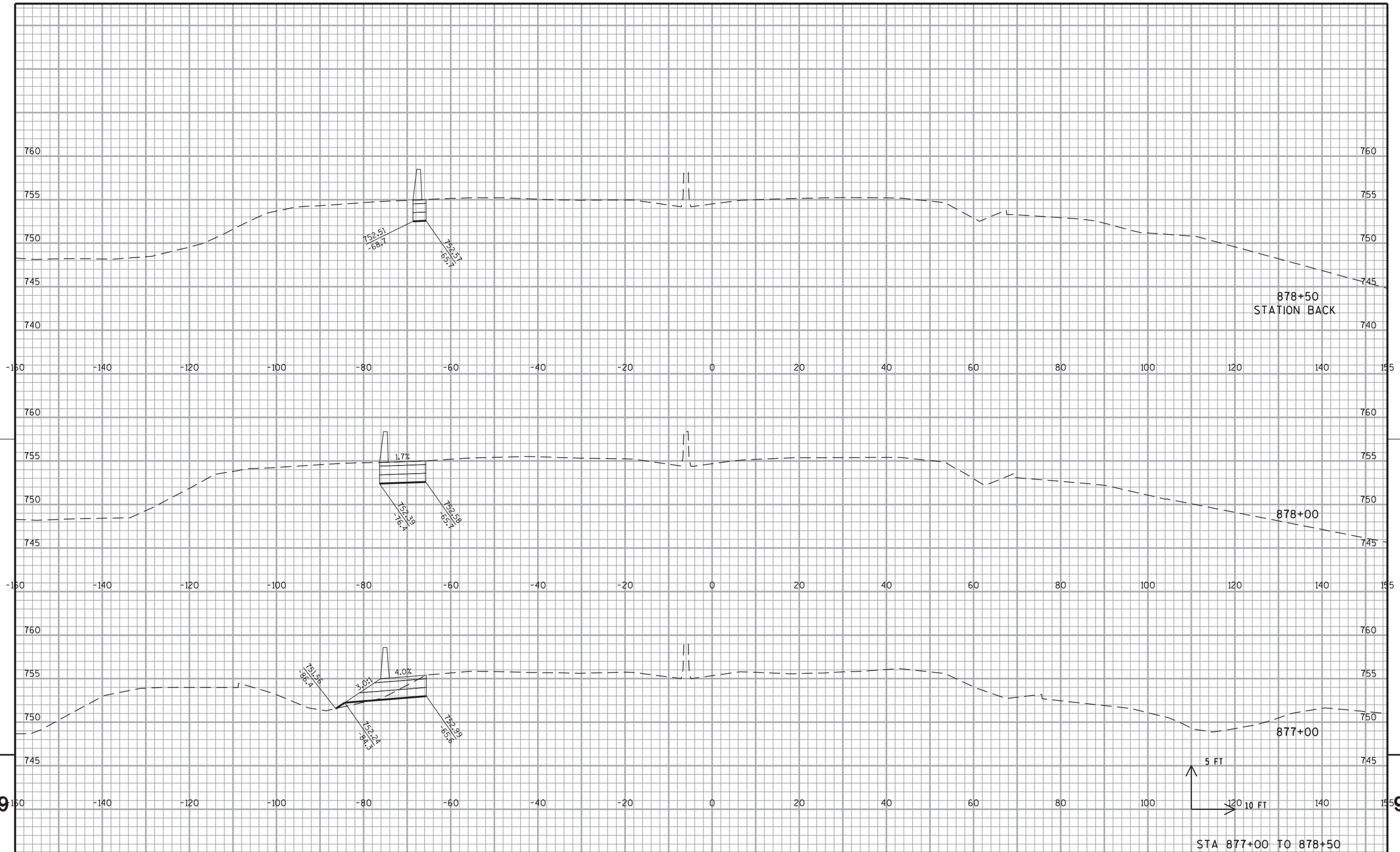


9

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

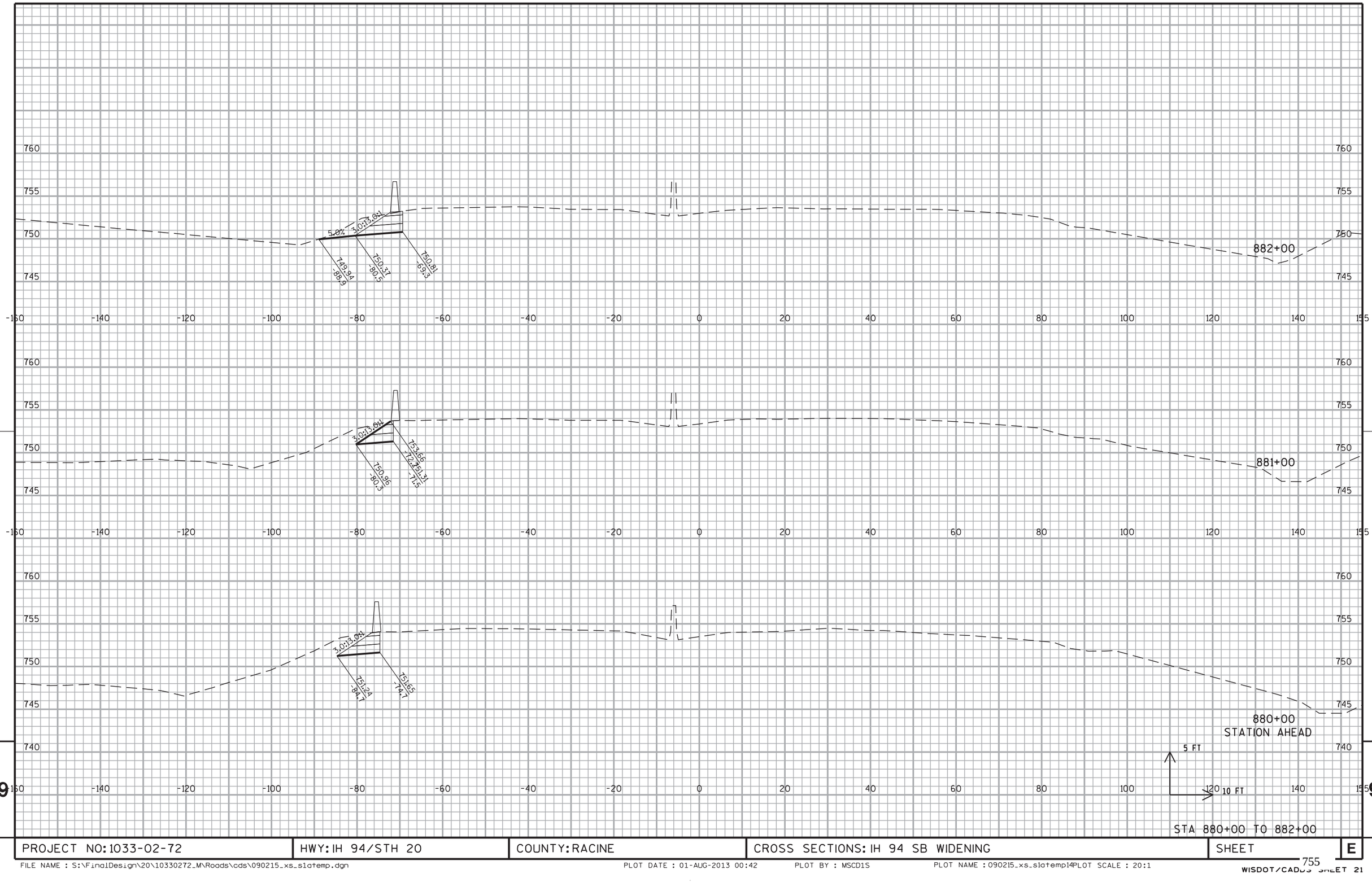
STA 874+00 TO 876+00

9



STA 877+00 TO 878+50

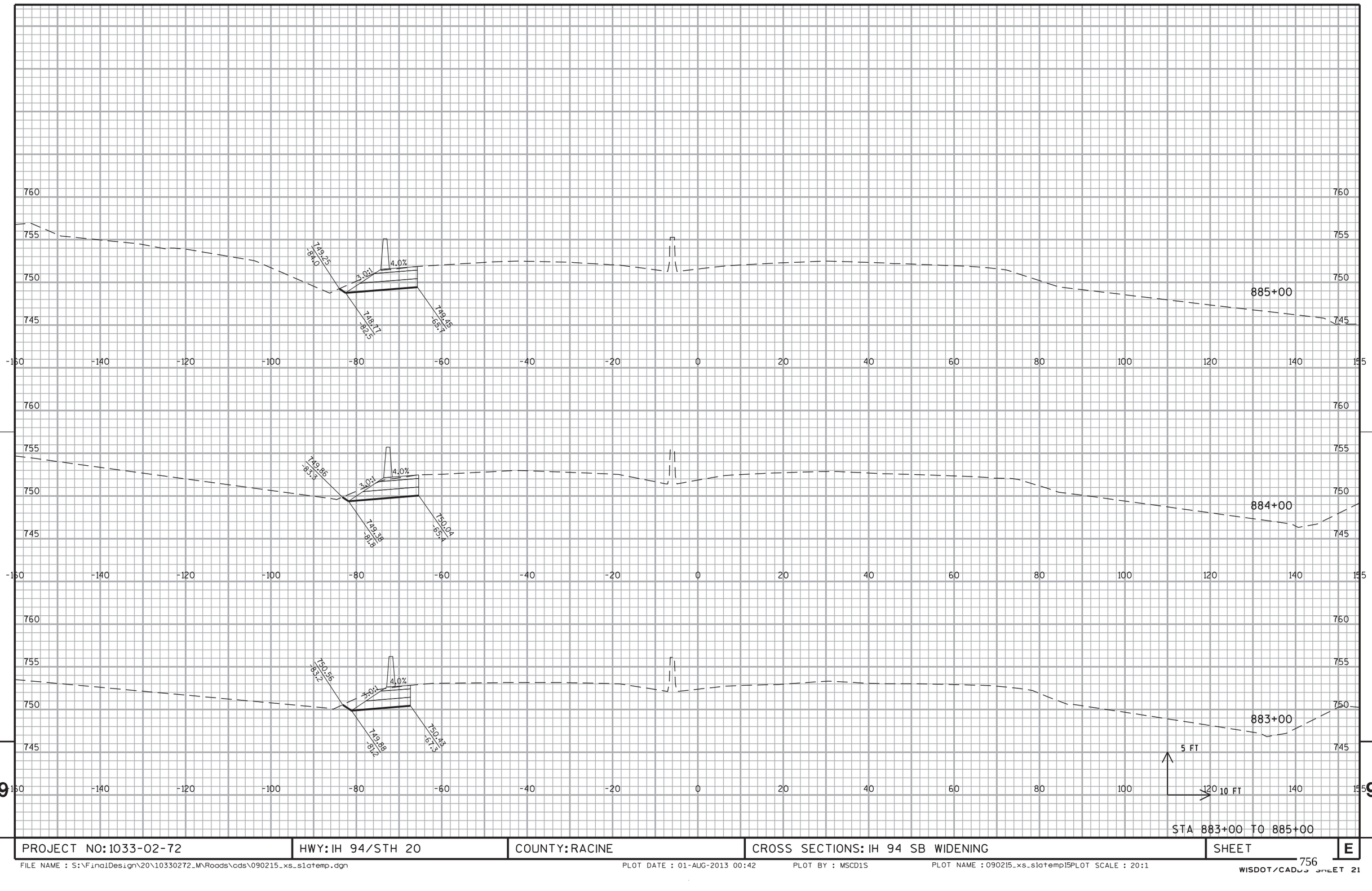
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_slatemp.dgn PLOT DATE : 01-AUG-2013 00:42 PLOT BY : MSCD1S PLOT NAME : 090215_xs_slatemp14PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 883+00 TO 885+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_slatemp.dgn PLOT DATE : 01-AUG-2013 00:42 PLOT BY : MSCD1S PLOT NAME : 090215_xs_slatemp15PLOT SCALE : 20:1

888+00

747.26
-84.2
3.0:1
4.0%
747.22
-84.1
747.96
-65.9

887+00

747.57
-84.2
3.0:1
3.0:1
4.0%
747.78
-83.1
748.52
-65.4

886+00

748.36
-83.5
3.0:1
4.0%
748.27
-83.2
748.97
-65.7

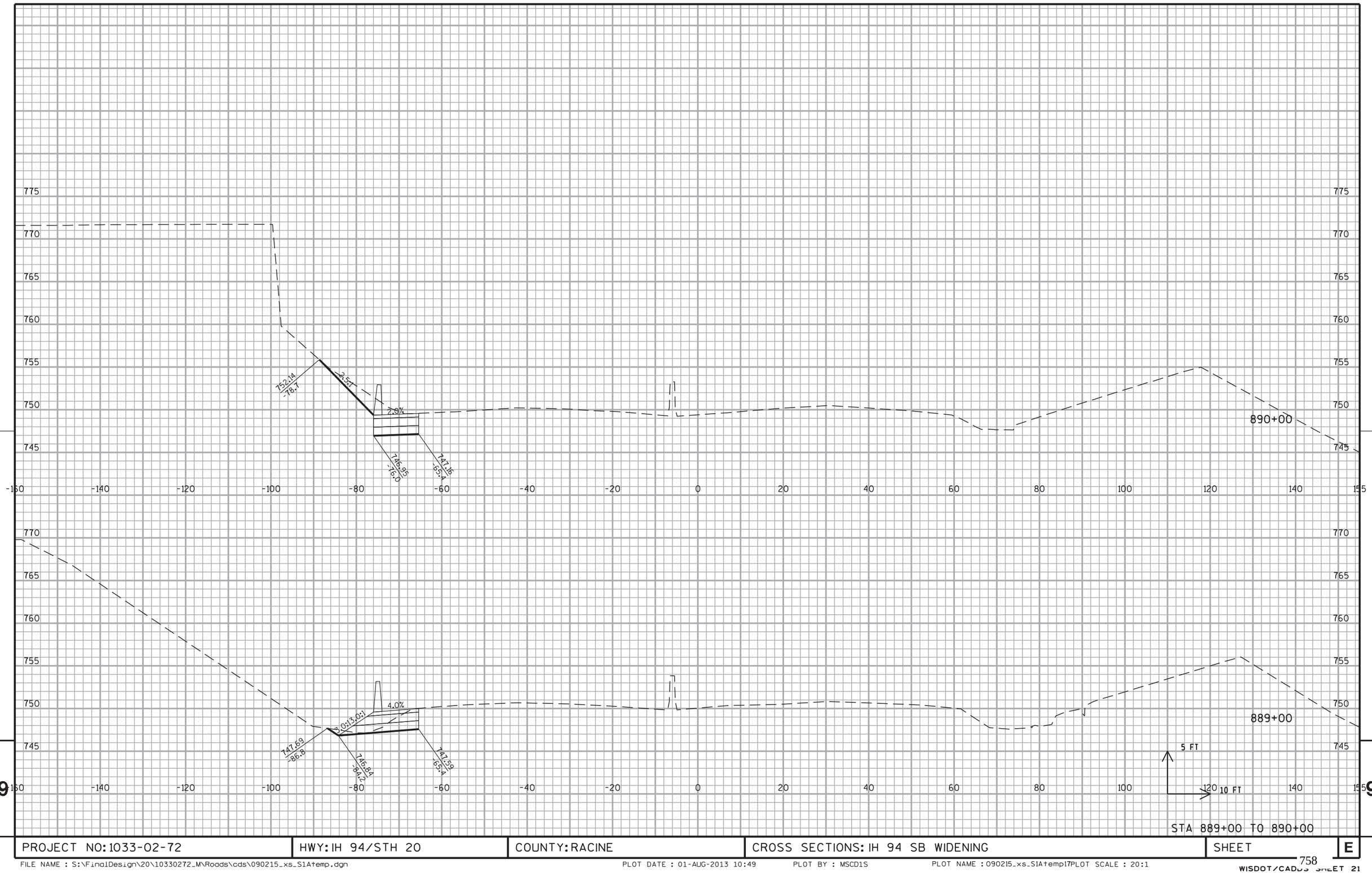
5 FT
10 FT

STA 886+00 TO 888+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_slatemp.dgn PLOT DATE : 01-AUG-2013 00:42 PLOT BY : MSCD1S PLOT NAME : 090215_xs_slatemp16PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



9

9

STA 889+00 TO 890+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

770
765
760
755
750
745
-160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 155

746.36
-87.3
745.38
-80.3
746.13
-65.3
3.0:1
4.0%

892+00

775
770
765
760
755
750
745
-160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 155

746.26
-91.2
745.87
-84.2
746.63
-69.3
3.0:1
3.0:1
4.0%

891+00

5 FT
10 FT

STA 891+00 TO 892+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_s1atemp.dgn PLOT DATE : 01-AUG-2013 00:42 PLOT BY : MSCD1S PLOT NAME : 090215_xs_s1atemp18PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

765
760
755
750
745
740

-160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 160

4.0%
3.0:1
3.0:1
744.73
-85.2
744.41
-94.2
745.15
-65.5

894+00

765
760
755
750
745
740

-160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 160

4.0%
3.0:1
3.0:1
746.08
-87.5
744.99
-94.2
745.14
-65.5

893+00

5 FT
10 FT

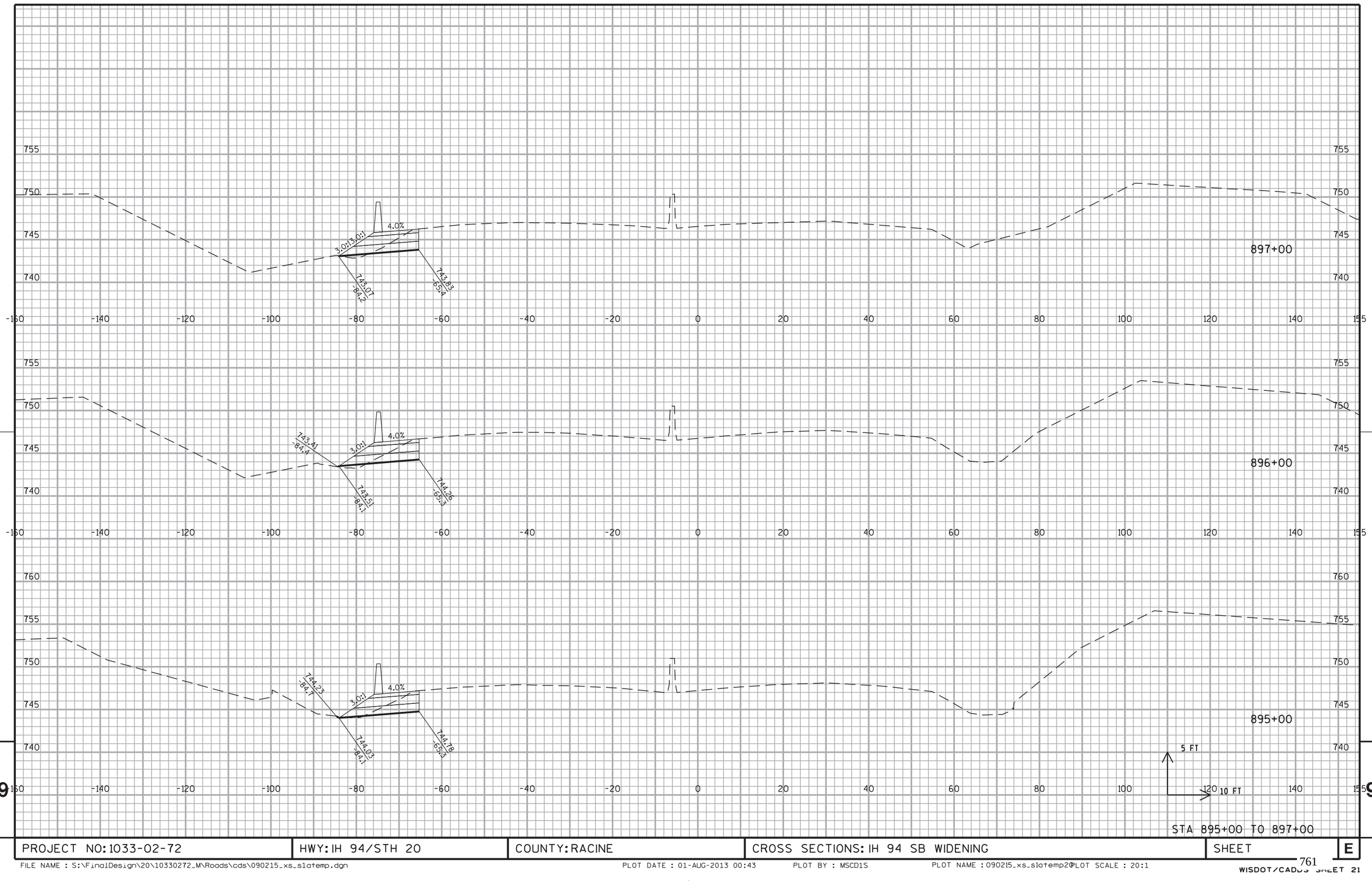
STA 893+00 TO 894+00

9 9

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_s1atemp.dgn PLOT DATE : 01-AUG-2013 00:43 PLOT BY : MSCD1S PLOT NAME : 090215_xs_s1atemp19PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

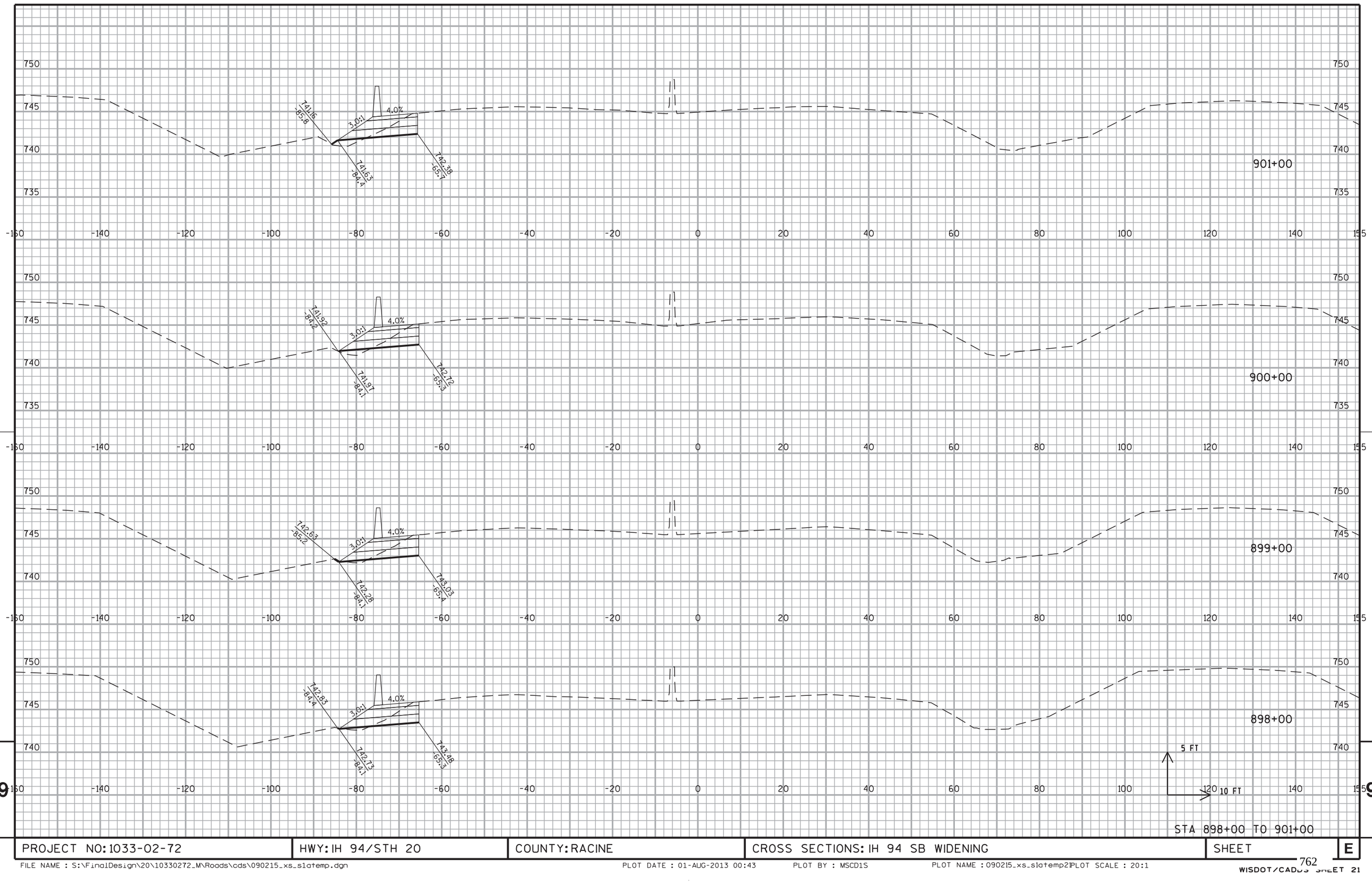


STA 895+00 TO 897+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

9

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_slatemp.dgn PLOT DATE : 01-AUG-2013 00:43 PLOT BY : MSCD1S PLOT NAME : 090215_xs_slatemp2 PLOT SCALE : 20:1



STA 898+00 TO 901+00

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090215_xs_slatemp.dgn PLOT DATE : 01-AUG-2013 00:43 PLOT BY : MSCD1S PLOT NAME : 090215_xs_slatemp2 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

750
745
740
735
-160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 155

142.11
-87.1
3.0:1
3.0:1
4.0%
740.98
-84.3
741.73
-65.6

902+91
STATION BACK

750
745
740
735
-160 -140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120 140 155

740.64
-85.9
3.0:1
4.0%
741.20
-84.3
741.95
-65.5

902+00

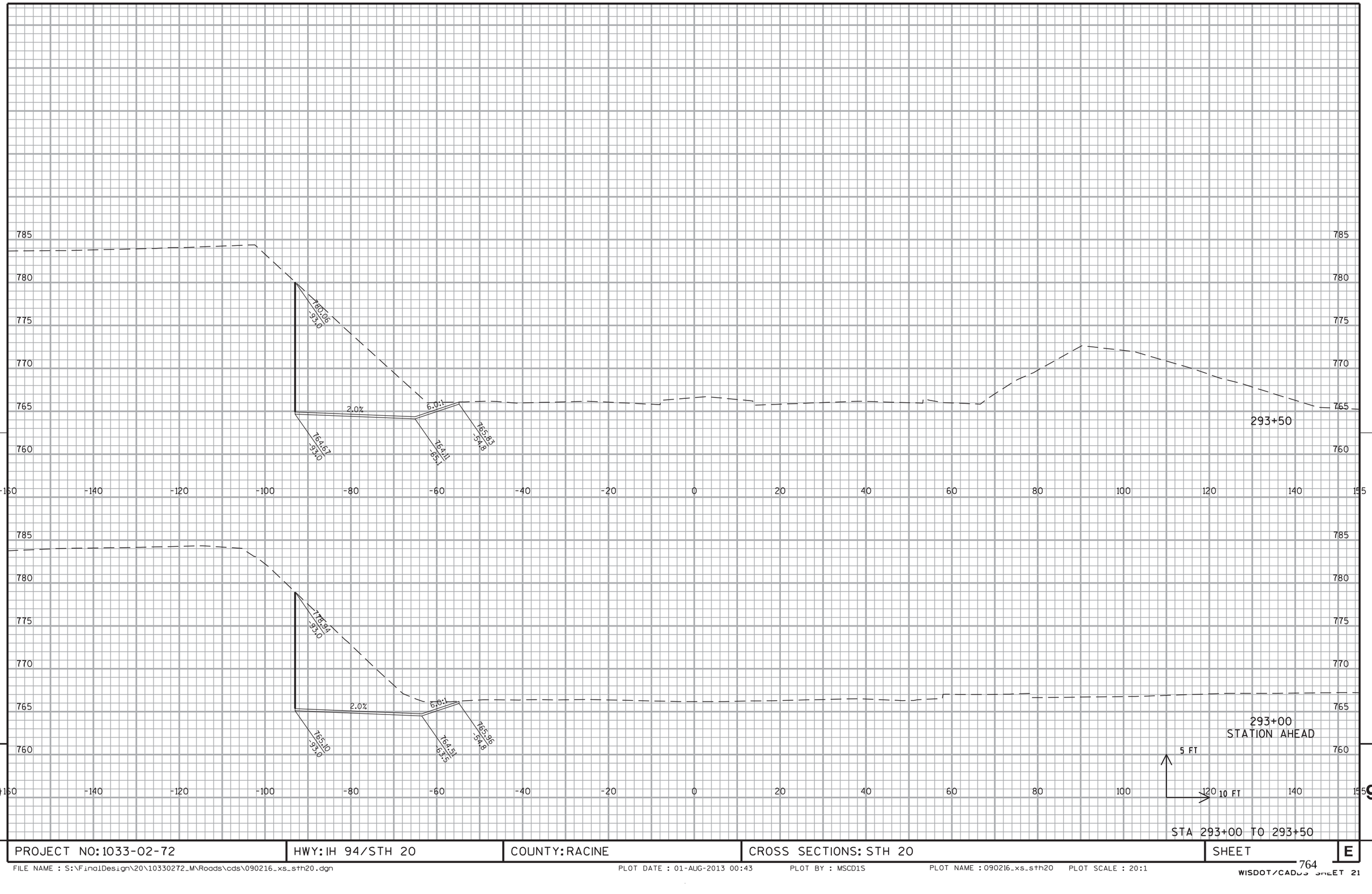
5 FT
10 FT

STA 902+00 TO 902+91

9

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: IH 94 SB WIDENING	SHEET	E

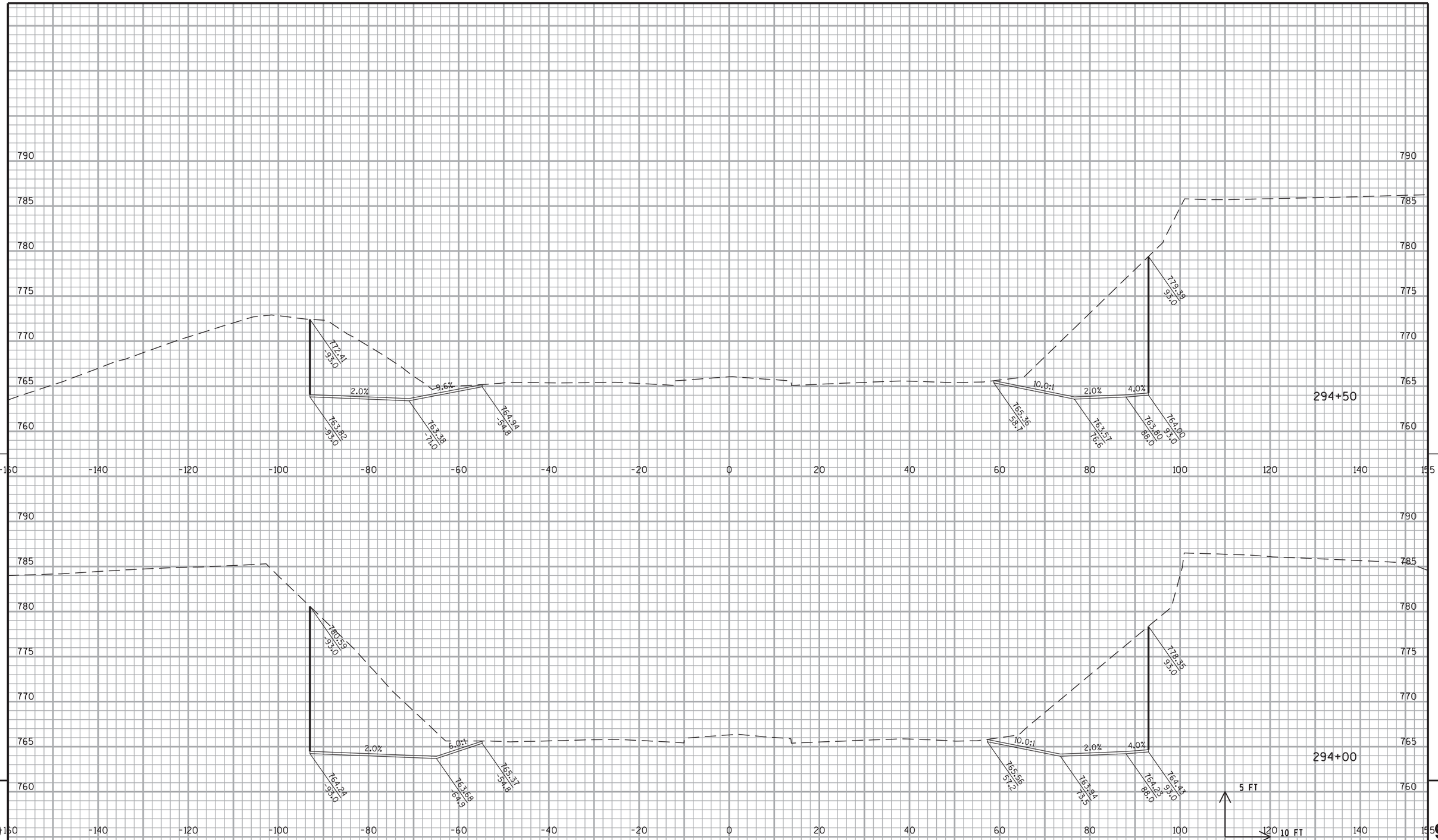
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WISDOT/CADDS SHEET 21



9 9

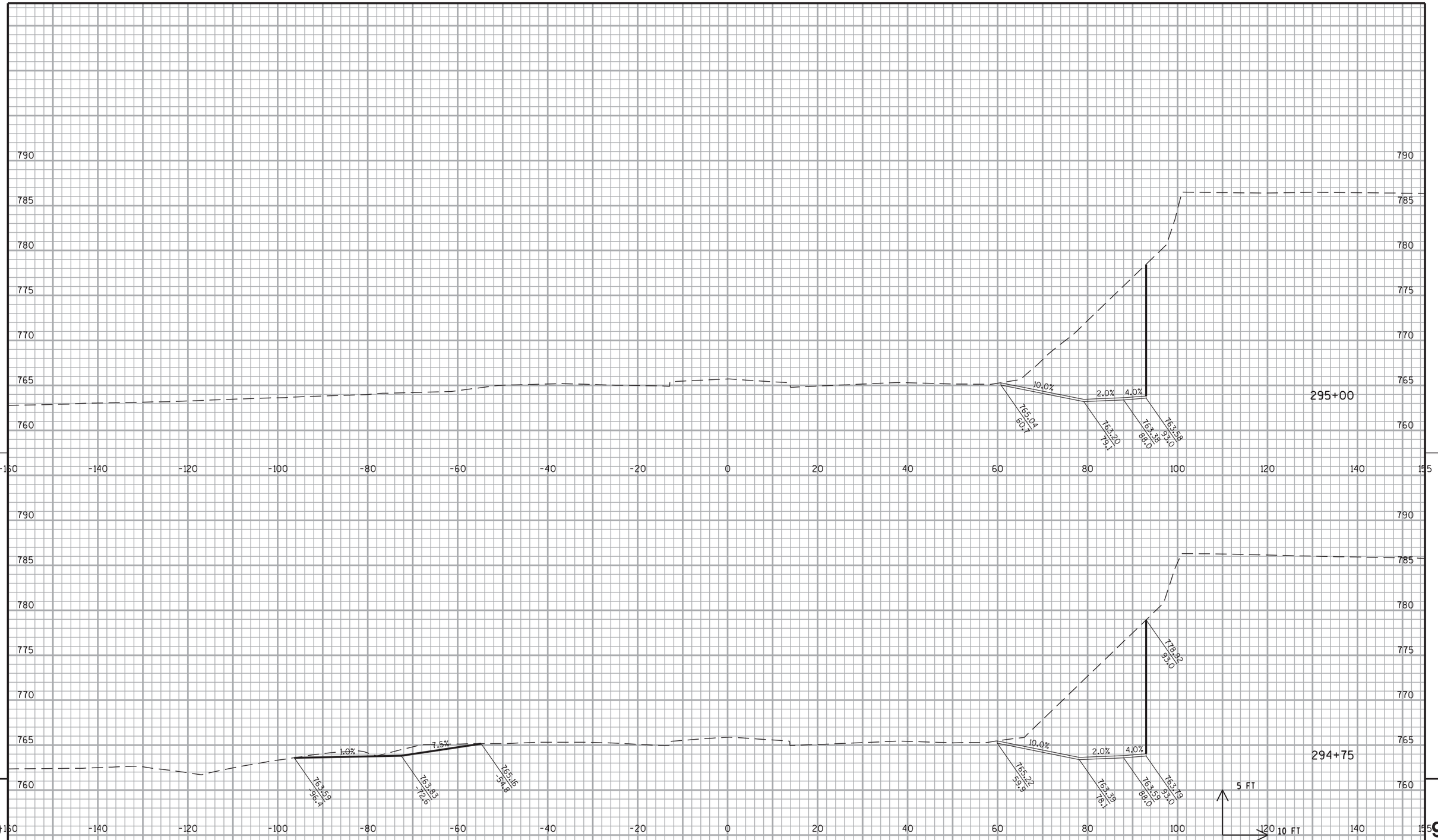
PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: STH 20	SHEET	E

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WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: STH 20	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090216_xs_sth20.dgn PLOT DATE : 01-AUG-2013 00:43 PLOT BY : MSCD1S PLOT NAME : 090216_xs_sth201 PLOT SCALE : 20:1

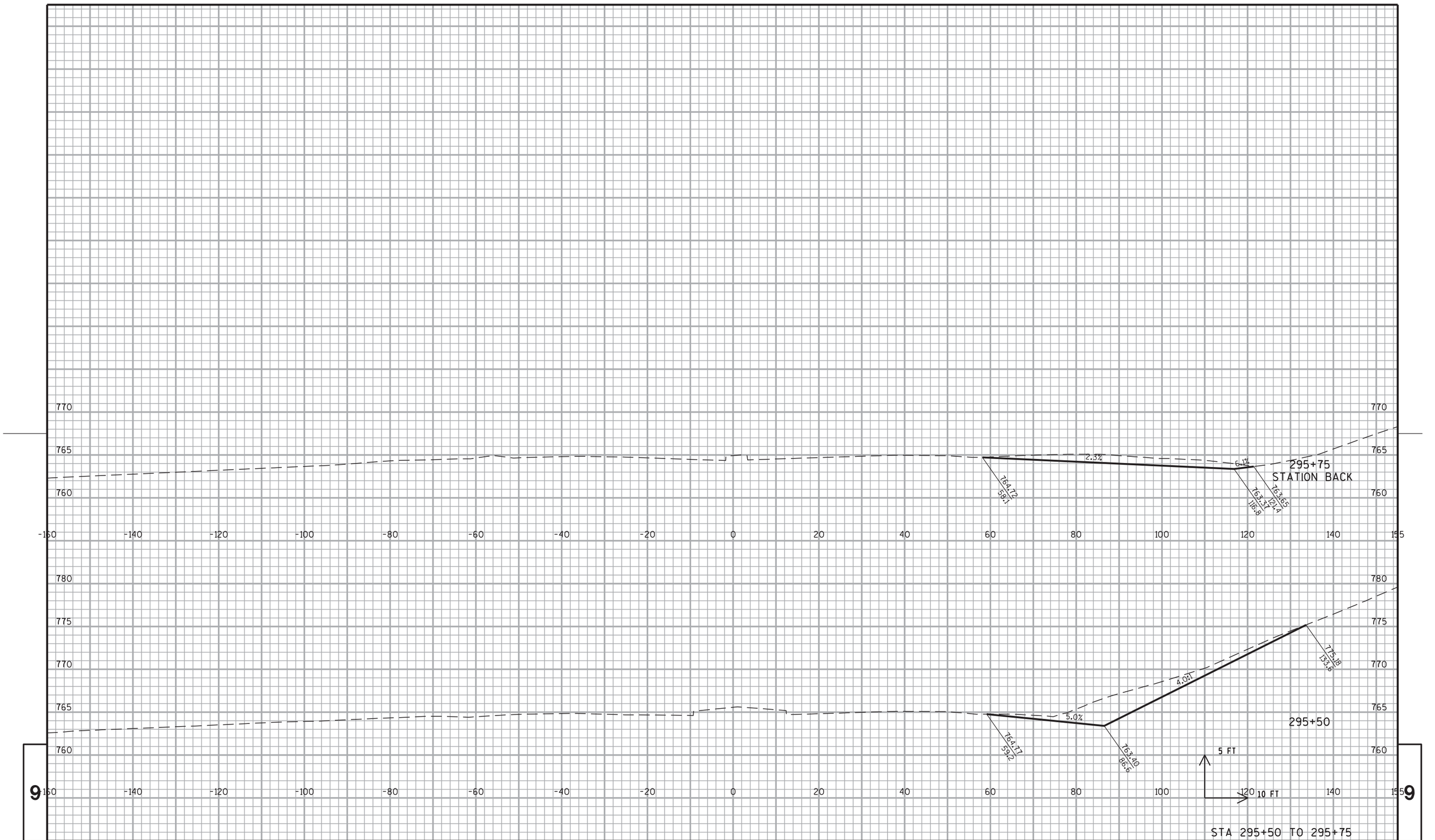


9

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: STH 20	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090216_xs_sth20.dgn PLOT DATE : 01-AUG-2013 00:43 PLOT BY : MSCD1S PLOT NAME : 090216_xs_sth202 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

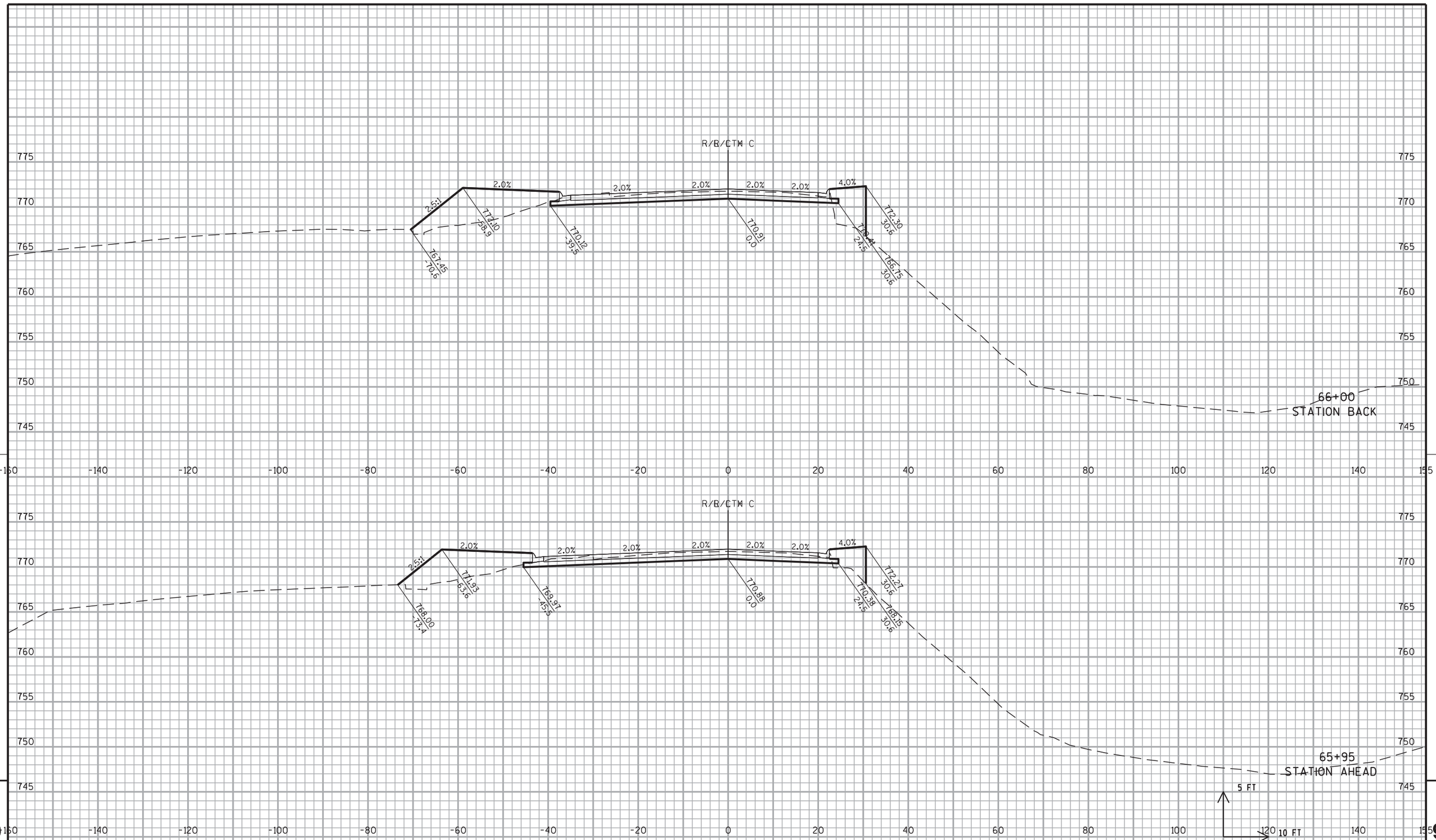


9

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: STH 20	SHEET	E

9

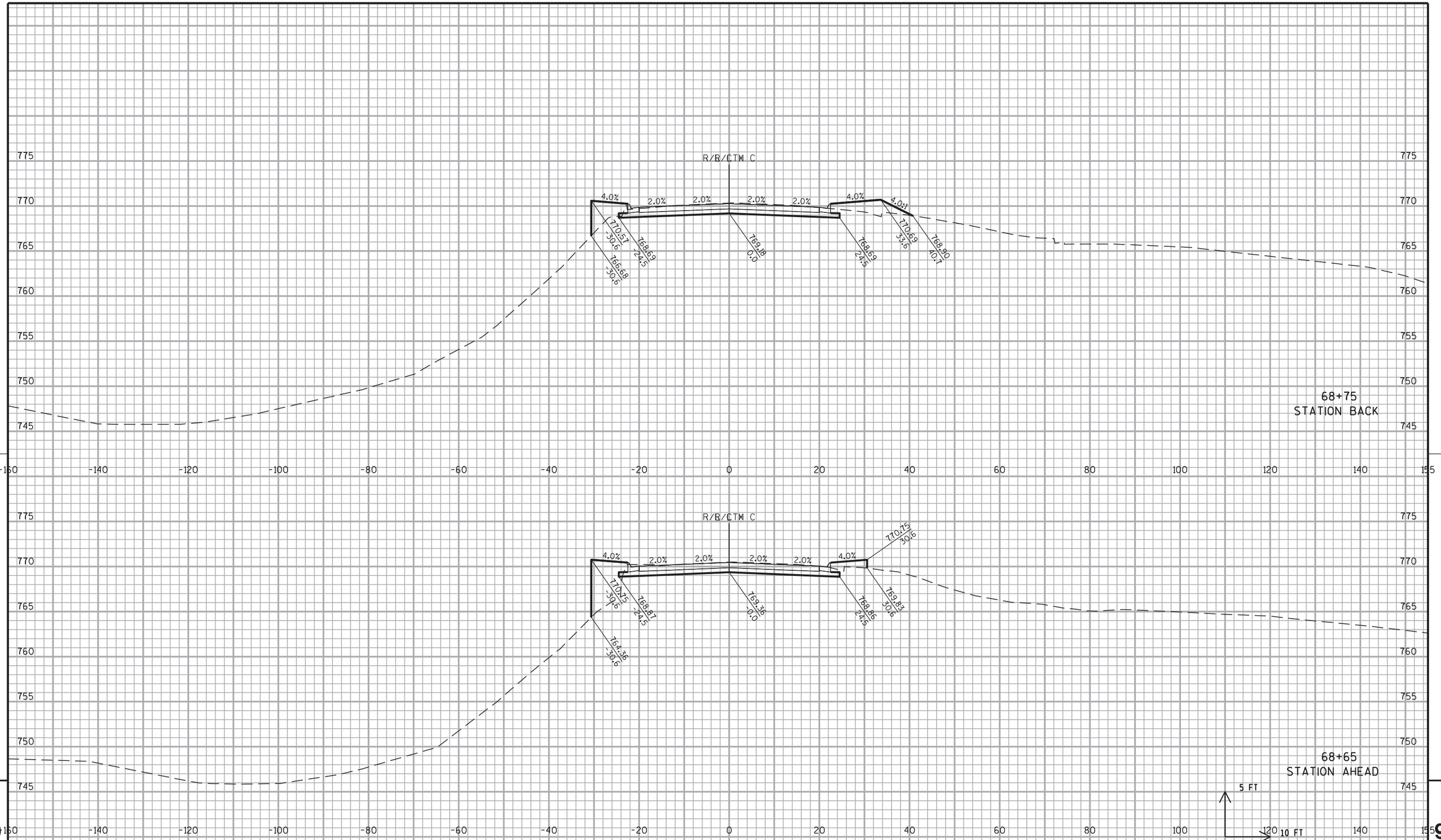
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WISDOT/CADDS SHEET 21



PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: CTH C	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090217_xs_cth-c.dgn PLOT DATE : 01-AUG-2013 00:43 PLOT BY : MSCD1S PLOT NAME : 090217_xs_cth-c PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21



STA 68+65 TO 68+75

PROJECT NO: 1033-02-72	HWY: IH 94/STH 20	COUNTY: RACINE	CROSS SECTIONS: CTH C	SHEET	E

FILE NAME : S:\FinalDesign\20\10330272_M\Roads\cds\090217_xs_cth-c.dgn PLOT DATE : 01-AUG-2013 00:43 PLOT BY : MSCD1S PLOT NAME : 090217_xs_cth-c1 PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

Wisconsin Department of Transportation

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